December 2015

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December 2015

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Chairman's Message

Safety in the City

By George Done

November can be a good month for flying, depending on whether or not a stable high pressure system is dominating the UK weather. Sadly this year this was not the case! But frustration at my inability to get airborne was tempered by attending 'Safety in the City', one of the General Aviation Safety Council's (GASCo) regular safety evenings.

This safety evening was unusual because, instead of being held in a flying club or similar, it took place in the heart of the City of London, starting at 6 p.m., when many pilots who work in London could attend after work and before heading off home.

Those I spoke to in the interval expressed support for the arrangement, as for many it requires a big effort to get out to one of the usual safety evening venues by the time they get back home.

The event was sponsored by AOPA and Hayward Aviation Ltd, who occupy part of an impressive modern building near Aldgate. The conference room in which the presentations took place and other facilities were impeccable, while the interval refreshments included alcoholic beverages, something that went down well with most attendees (who had no need to drive home afterwards!)

AOPA is a major supporter of GASCo, financial and in kind, and it is through this body that AOPA's influence and views on GA flight safety can be brought to bear. This includes AOPA's long-standing Wings scheme, recently endorsed by the CAA as the first to be recognised under the new PROUD framework.

The firm view of AOPA is that GA flight safety is best discussed and represented by one body that includes all sectors of GA, from associations covering model aircraft flying to bizjet operations.

GASCo's origins go back 50 years, just before the British Light Aviation Centre adopted AOPA as its trading name; indeed, the BLAC was one of the founding members of GASCo.

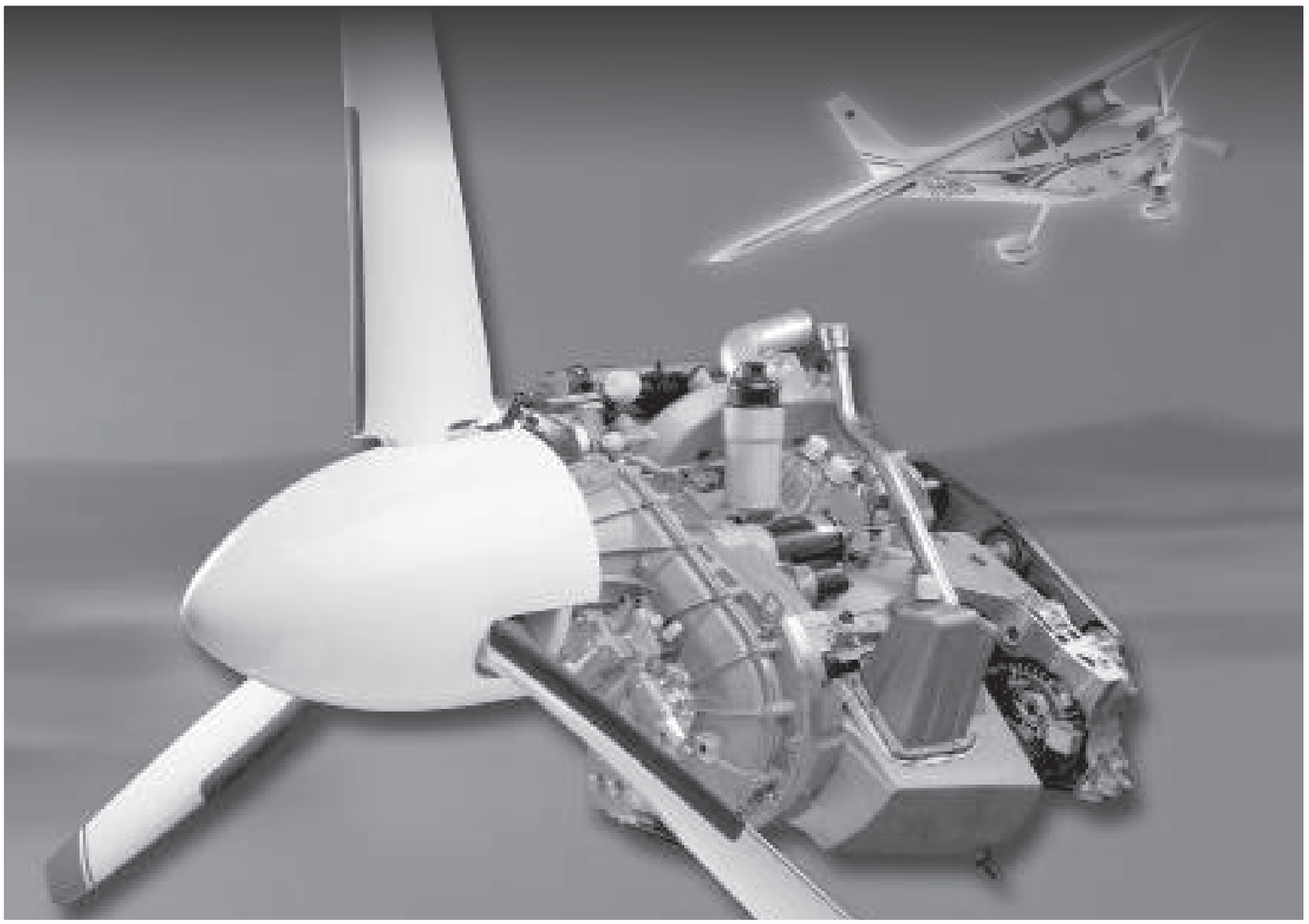
The Safety Evenings were run for many years by the CAA and, by arrangement, GASCo took over the responsibility in 2013, following the appointment of Mike O'Donoghue as CEO in 2010.

The last safety evening I attended was more years ago than I dare to admit, but I can say that the content is now very different, and extremely relevant. One topic that has risen to the fore in recent years is that of 'human factors', which now forms a thread throughout all areas where safety is compromised.

These areas are summarised in the CAA's 'Safety Six' - the most significant causes of fatal and serious accidents in GA or where the associated risk is great, as in the case of airspace infringements.

One's own attitude to risk and its management is a prime factor. Practical demonstrations of the built-in human limits of perception were revealing, in particular the 'magic trick' example of distraction (it's worth attending a safety evening for this alone!)

Most AOPA members will be familiar with GASCo, its mission and objects, but, if you are not, you can visit the website or find it on the AOPA site under "AOPA supports…"



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Editorial

By Ian Sheppard

Yesterday (Sunday 29th November) I drove from Redhill up to Telford for the *Flyer* LIVE event. Having relatives in Malvern, I had a second excuse for the journey, while a third was to take my 13-year old son to Ironbridge for a brief history lesson.

We were only at the *Flyer* event for two or three hours – teenagers do get bored quickly! But in that time I was able to sit in on a talk by the CAA's Mark Shortman introducing the new E Conditions for experimental aircraft (See page 11). This was very interesting – I already knew a little from John Edgley, from when we flew the Optica. It would be good to think the UK can start to build substantial light aircraft again.

The *Flyer* event was full of tiny Rotax-powered machines; this sport/hobby end of aviation is receiving a lot of the CAA's deregulation attention. For example you can now train for a PPL in microlight you have a share in.

Lowering the cost of flying, and improving access, is fantastic, as long as we don't ignore the big picture and licenced GA airfields can remain sustainable. Already ATOs can establish at non-licensed fields. I would very much welcome any feedback on the economic arguments. The one ray of sunshone for larger aircraft is Part M Lite, but this is unlikely to stem the tide.

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Chief Executive's Diary

Getting around Europe

By Martin Robinson, CEO, AOPA UK

Towards the end of September (24-28) I was in China where I attended a large GA airshow, where I'd been invited to speak about the development of GA in this vast country.

It was interesting to note that most of the air display performers involved UK teams and pilots (for example the Breitling Wing Walkers), who had made the long journey east.

More than 200,000 people attended over the three days – clearly from the reaction of the crowds watching the displays they were impressed. The gasps and 'wows' reverberated around the site each time a loop or roll was executed.

In early October (1-4) IAOPA held its Regional Meeting in Lourdes, France (see report, page 38). The location was chosen by AOPA France because it gave delegates a chance to visit the Socata factory in Tarbes (See picture of TBM assembly line, below right).

It was a pleasure that Christophe Robin, Daher's head of engineering, was able to join us at the meeting. He gave a very interesting presentation on manufacturing and safety, and in particular the need to lessen the regulatory burden on designers of lighter aircraft (the rules being based on those for big aircraft).

Thanks also must go to Nicholas Chabbert, managing director of Daher Socata, who invited the IAOPA representatives to a wonderful dinner in Tarbes on our last evening. And all of this was made possible thanks to Jacques Callies, who is president of AOPA France and a good friend to us.

The meeting agenda was extensive as IAOPA still tries to reach consensus on issues facing GA across Europe from SES, EASA and SESAR.

On 6th October I was back in the UK again and heading to the Department for Transport (DfT) for an EASA briefing to industry. As you will recall from the last report, I was concerned about the proposal to merge EASA representative bodies and this was raised directly with the DfT. The Department's position was very clear in that the EASA management Board had not received, at that point, any formal papers from EASA. Other organisations had also raised their concerns on this issue. There are likely to be more developments on this in the coming weeks that I will be able to report in the February issue of AO&P.

Corporate Committee

On 7th October AOPA held the first meeting of its re-constituted Corporate Members' Committee – the aim of this group is to deal with issues affecting the business so it could include tax issues, for example a sub-group of this group is the re-constructed Aerodrome Committee, which will be chaired by John Walker. This Committee will deal with specific/individual aerodrome issues. If any aerodrome, operator or flight training organisation wishes to engage with either of these bodies, please email us at info@aopa.co.uk.

We also have an engineering group chaired by George Done; and a members group chaired by Pauline Vahey (she chairs the Corporate Committee too!)

Also we plan to add an Airspace Committee, which means we have a full house when you include the Instructor Committee (chaired by Geoffrey Boot).

The TBM final assembly line in Tarbes, southern France, visited by IAOPA delegates in October.

All of these groups are designed to involve members so please get involved if you have time to give.

By this time two consultations were looming large and required responses: (1) the GA ANO Final Consultation, and (2) the Civil Sanction proposals. Again, these are areas that will have seen more progress by the time I next report, in early 2016.

AOPA also fully supported the proposals at Lands' End Airport for the establishment of four LPVs, as we believe this will be of benefit to all users at Lands' End at times of reduced visibility – improving safety and access.

On 19th October I visited Stapleford, meeting John Chicken, who has operated the Aerodrome since 1952. His company has never changed its name and is still going strong, and has always been very supportive of AOPA and its activities.

Then on 21st October there was another meeting of the CAA GA Finance Group, which is considering the income and cost of running the GA department. Overall, there is a sizeable under-recovery and the CAA, in consultation with the GA Community, is investigating ways to reduce this shortfall without putting up fees.

The following day I attended the full Finance Advisory Committee where the main discussion/update was about the CAA's change process and where it is heading. We know that there are issues to be overcome but I remain confident that eventually they will be solved.

On 27th October I met with the UK reps of Cirrus Aircraft, and later that day I headed for Brussels in order to attend the EAB meeting on the 28th. During this meeting it was made clear that EASA has no intention to dissolve the Body and that it was a misunderstanding. It is good that there will continue to be an independent voice of the industry maintaining checks and balances on the whole system.

The following day I attended the PBR (Performance Based Regulation) conference in London, which was organised by the CAA. It is interesting to note that the CAA is leading on this across Europe. Pekka Henttu, the Finnish chairman of the EASA Management Board, was also present. He said that EASA was not quite there yet with PBR! So the main focus on this subject is PBO (Performance Based Oversight) which ties in with civil sanctions.

It was a good conference, and was well organised, and all credit to the CAA for inviting AOPA to attend.

SESAR Update

The next day I was in Brussels for a meeting with SESAR to talk specifically about GA. Philip Church and Michael Erb (AOPA Germany) attended as well. Phase 1 of SESAR stops mid-2016 and Phase 2 will then begin, with a greater focus on GA. IAOPA is committed to working with SESAR to build a better ATM, improved safety and better airspace access for GA.

On 2nd November I had a meeting with CAA GA Unit head Tony Rapson, for a general discussion on GA in the UK and EASA. I know he has his work cut out and overall we believe he is heading in the right direction.

In November we submitted the AOPA response to the GA ANO Review proposals. More on this in the next issue, when we know what shape the changes will take.

AOPA also submitted its response on civil sanctions, which we broadly support but with some caveats about the rights of individuals in law.

I should stress that any penalty imposed goes to the treasury. There are some issues around administration costs and interest charges for late payments but overall AOPA is fairly well satisfied with the appeals process, as it is outside of the CAA. However, we do not know what level of compensation will apply in cases where things have gone wrong.

On 5th November there was a meeting of the GBASF, which has an ongoing strategic remit. I also raised issues of concern with the proposed ANO amendments at this meeting.

The February issue will given an update on activities running up to the end of the year. Meanwhile may I take this opportunity to wish all readers a Merry Christmas and a very happy and prosperous 2016, with lots of flying!

Obituary

Air Commodore David Bywater

David Bywater, who died peacefully at home on 24th September 2015, was an ardent supporter and vice president of AOPA. His wide experience in aviation and associated affairs led to him being invited in 2006 to serve as a director on the board of the British Light Aviation Centre Ltd (which trades as AOPA) and on the executive committee. When the committee was faced with knotty problems, David had a greatly valued ability to cut through the distracting elements and present a way forward with quiet humour and clarity.

David served for 35 years in the Royal Air Force, initially as a Handley Page Victor captain, and then with the Empire Test Pilots School, undertaking a variety of appointments in research and development at the Royal Aircraft Establishment at Farnborough and the Aeroplane and Armament Establishment at Boscombe Down, from where he retired as Air Commodore and Commandant in 1992. He then joined Marshall of Cambridge Aerospace as the company's airport and flight operations director, meanwhile gaining a commercial pilots licence and instructor rating with night and instrument qualifications. He retired from Marshall Aerospace in 2002, but continued to provide consultancy services to several aerospace industries and communities.

He was a liveryman of the Guild of Air Pilots and Air Navigators, an honorary member of the Cambridge University Air Squadron, a director of the Royal Air Force Charitable Trust Enterprises, which is responsible for the Royal International Air Tattoo, and an honorary member of the Airport Operators Association. David will be sorely missed by all at AOPA and our sincerest condolences go to his wife Shelagh and his family.

George Done

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CAA Explains E-Conditions at *Flyer* LIVE event

Photo by Sebastian Sheppard

Left: Mark Shortman of the CAA explains the new E Conditions, which were launched last month.

Right: *Flyer* Live took place at the International Centre, Telford, 28-29 November.

Below right: AOPA's exhibition stand at the event.

On Sunday 29th November, Mark Shortman, manager policy and business delivery at the CAA's GA Unit, gave a presentation to explain the 'E Conditions' for flying experimental aircraft in the United Kingdom.

His talk followed on from the launch of the E Conditions in London on 16th November, during the Royal Aeronautical Society's annual Light Aircraft Design Seminar. Also at the seminar the RAeS launched a new aircraft design competition.

Shortman said the genesis of the E Conditions could be traced back to "way back in 2006…so it took quite some years to get traction." He noted the key role played by the RAeS's General (formerly Light) Aviation Group, and introduced its long-time chair John Edgley (of Optica fame).

"The 2013 Red Tape Challenge initiative gave the CAA some direction from government to start putting some thinking in." In May 2014 a collaborative working group was formed (with Shortman and Edgley as co-chairs).

During this time the CAA formed its new GA Unit, "and since then we have been working tirelessly to change the face of GA in the UK," said Shortman. "And one of biggest endeavours to date has been the E conditions."

"This isn't like FAA experimental category," he explained, in that builders don't have carte blanche freedom – "but it is a vast step forward.

In 2014-15 public consultations were held and the group published Comment Response Documents. Then came the formal unveiling on 16th November.

What are they?

The E Conditions open the door for flight testing of non-EASA aircraft with a Max Takeoff Mass (MTOM) of up to and including 2000kg (though the Single Seat Microlight (SSDR) category will still operate up to 300kg MTOM). This can include "new aircraft, 172s, helicopters, or whatever."

The effort has to be overseen by a "Competent person" who has to sign a Declaration. This is the only thing that has to be sent to the CAA, which otherwise will have a "hands off" approach, said Shortman.

"We have eliminated for proof of concept flying the regulatory and financial burden of getting airworthiness and operational approval," said Shortman. He added that it is open to both commercial entities and amateur builders.

If, following this stage, further development is planned, then thebuilder must move into the organization and type approval processes. "The E Conditions are not intended to replace the B conditions for getting final approval – so you have to move from E to B to go further."

At the moment the E Conditions are available by way of an exemption but there is a proposed amendment to Article 16 of the ANO (Requirements for a C of A), said Shortman, which will introduce "a new definition of experimental aircraft of 2,000kg or less." The exemption to the ANO (designated ORS4-1142) outlines the requirement for a Declaration, Competent Person, etc. and should be in place "hopefully by Autumn 2016," he said.

The Competent Person must take responsibility for the safe conduct of flight testing. The 'CP' will be able to follow a new guidance document for E Conditions, CAP 1220.

The CP's Declaration will outline the testing to the CAA but it is a declaration only, so no permission is required," said Shortman. The CP must prepare a dossier for the proposed test programme and declare that this has been done (he said the CAA does not need the dossier).

Shortman said there were two distinct route to become a CP: A Member/ Fellow RAeS and Chartered Engineer (CEng) will be recognized automatically as a Competent Person. Secondly, a Competent Person can be such having been authorised by the LAA or BMAA

(which are A8-26 approved organisations). A8-26 will be changed to reflect this authority.

The Competent Person then receives a CP Registration Number (CPRN). CAP 1220, which is around 50 pages long, is "nearly a one-stop shop" on how to utilize the E Conditions, said Shortman.

He confirmed that third party insurance would be required, as the aircraft will be on the G-register. This is in accordance with EC Regulation 785/2004 which stipulates that any aircraft registered (in the UK as laid down by Article 3 of the ANO) must have insurance.

The Declaration must state the start and end dates of the endeavour, with the maximum period being 12 months. The Declaration states that everything done by the CP is as laid out in Chapter 8 of CAP 1220.

The guidelines state that the Dossier must be in 4 parts: the Declaration; Aircraft Design & Build; Flight Test Programme; Risk Assessment. "The Dossier has to be kept up-to-date," noted Shortman. He said the form to submit is already available at caa.co.uk/EConditions, and the submission fee (for new or supplementary) is at present £51 (which he warned may go up after April 2016). Amendments are free.

Once the CAA receives the Declaration it will send an acknowledgement, "and once the acknowledgement from the CAA is received flight testing can start." If the aircraft to be used for the testing already has a C of A, it will be "suspended to allow the aircraft to operate under the E Conditions," said Shortman.

"There is definitely no enduring category so there is a 12 month limit," he reiterated." He recommended that the CP uses an existing code to carry out the risk assessment. Risk of serious injury to uninvolved third parties must be determined to be "extremely improbable" (basically similar to Part 23/1309) and risk of serious injury to pilot and ground crew "reasonably mitigated."

"You need to declare information about the aircraft and test plan, test area, base airfield, test equipment fitted, imposed aircraft limitations," he said, adding that the requirements were "deliberately vague" on the scope of the experimentation, so "for example it can include demonstration to customers and financiers."

Limitations

"All flights must be A to A within the recorded flight test area; ferry flights are not permitted at present but there is quite some debate about that. We didn't want them flying over built-up areas or in congested airspace."

Finally, he said that if it takes longer than 12 months, "we can accept extensions but there has to be a rationale from the CP." More details of this will be in CAP1220, said Shortman.

He thanked the RAeS General Aviation Group. "Without John's endeavour this would never have happened." He also noted several other key contributors, such as LAA chief engineer Francis Donaldson. "So we did have the heavy hitters of the engineering community for GA in the UK," he said.

"E conditions is very new, still in its infancy, so we will need to reconvene to evolve them – but at least we have passed a critical point," he concluded, while adding, "We are by no means at the end of the regulatory overhaul of GA legislation in the UK."

A short Q&A session followed. It was noted that EASA aircraft could be used but the EASA C of A and ARC would be suspended "transitioning it to an Annex 2 world." Shortman said that you could do EASA Airworthiness Review under Part M at the end if to transition it back again after the period – but that "if aircraft has been operated outside its normal envelope that could be a challenge for the reviewer, to ensure the aircraft hasn't been over-stressed for example."

During the Q&A Shortman said that the CAA had briefed EASA on E Conditions. "EASA has now acknowledged that they need a pan-European experimental category," he said. "So these could become redundant in a few years if EASA does that!"

He also said there were signs that if the CP had maintained a detailed dossier, that could be presented to EASA to reduce the burden of EASA investigating the mod.

Another question related to observers. "Generally you are limited to pilot only… there was lots of debate on this but if the CP wanted [an onserver] then it may be allowed, e.g. a flight test engineer. So the simple answer is if CP wants to do it, you can do it."

A final question was about amphibians testing on water, so not being A-to-A test sorties. "We've never considered that but it doesn't seem unreasonable." He said the test would be whether the CP could show that the risk had been sufficiently mitigated.

Safety Sense:

What would you have done?

By Nick Wilcock

Recently, I was on my way to Stapleford aerodrome on rather a gloomy day. As is the norm these days, my GPS was programmed with the destination and I was happily following the magenta line, noting that I would arrive in plenty of time for a coffee before my next activity.

Then it happened. My trusty portable Garmin froze. And I mean froze as nothing I could do would persuade it to reset; in fact, it wouldn't even switch off and the screen showed my last position and time. I did have a back up GPS, but that was in the luggage compartment. However, as I wasn't very familiar with the area, I'd taken the precaution of preparing a paper map of the final few miles. Not something I would normally bother to have done, but it rather fortunate that I'd done so on the day my GPS decided to fail.

Perhaps I should mention at this stage that I wasn't flying, I was in my trusty Teutonic tourer and the GPS froze just after leaving the M25. But software is software and my problem could just have easily have occurred in an aircraft. The reason for my trip to Stapleford was to attend the AOPA Members' Working Group and the GPS failure gave me a sound excuse for discussing with colleagues about the advisability of routinely carrying a back-up device (paper or electronic), in case their primary system failed in flight.

Now that Part-FCL LAPL or PPL holders without instrument qualifications are legally permitted to fly out of sight of the surface under VFR (assuming that they've found a hole through which to climb in the first place - and that there's another at destination), it is even more important than ever that pilots know their position at all times, so I recommend that pilots get into the habit of asking themselves "What will I do if the GPS fails?"

Years ago, when dinosaurs had only just been taken out by a comet, the CAA seemed to regard a GPS as some tool of the devil and insisted that lines on maps and nice visual fixes were the primary means by which a PPL holder should navigate. But that was in the days when a PPL holder without an instrument qualification had to remain in sight of the surface; times have moved on.

If you've planned well and are flying accurately, then if the wind velocity is close to the forecast value, you shouldn't wander far from your planned track if you have to pull out your back-up; but why not plan for a contingency in the first place? If you haven't got a back-up, then don't waste time if your GPS fails - get on the radio and make someone aware of your predicament *before* you become an infringement statistic.

On the subject of airspace infringements, in the last edition of *AO&P* I mentioned that the UK is planning (at last!) to get rid of the current plethora of RPS-based Altimeter Setting Regions in favour of fewer, but larger ASRs using actual QNH. This is now the subject of a CAA consultation, details of which may be found in CAP1349, although this is primarily concerned with the proposals for a harmonised Transition Altitude at 18,000 feet. The chart of the proposed ASRs is shown in CAP 1349-7; these seem fine to me, except for some of the daft names. For example, whereas most people could probably make a rough guess as to where 'Avon' and 'London' are, the same cannot be said of 'Kelvin', 'Lindi' or 'Potter'. Also 'Cornish' is phonetically similar to 'QNH', so mistakes could easily be if the quality of RT isn't particularly good. Personally I consider that overland ASRs should be named either by their region (e.g. 'Western', 'Central' etc.) or by a well-known geographical feature (e.g. 'Wash', 'Cheviot' etc.), not by some rather meaningless title.

My GPS did eventually recover, but only after the battery had run down and I'd recharged it. But knowing that a GPS can 'lie like cheap Changi watch', to use an old RAF expression, I'll be a lot more careful to ensure that I've got a back-up plan available if it goes on strike again!

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GA News Roundup

Wireless headset breakthrough

Lightspeed Aviation recently announced the launch of a wireless headset. "For years pilots have been asking us when we will be coming out with a wireless headset," said Allan Schrader, president and CEO of Lightspeed. "There are a number of electrical and acoustic issues that made the project a challenge. I am very proud of our development team for finding novel solutions to those hurdles…having numerous flight hours on it myself, I discovered there is an unanticipated sense of freedom that comes from not having a cable on your headset!"

According to Lightspeed, Tango uses a patent-pending combination of analog and digital technologies called Lightspeed Link™ to create a reliable wireless signal that delivers quality audio and clear communications. Neither Bluetooth or WiFi produced acceptable levels of performance to be selected as the protocol for Tango.

Tango is powered by rechargeable lithium ion batteries in the headset and the panel interface. The batteries deliver twelve continuous hours of use.

Tango includes Bluetooth for both phone and streaming music and an auxiliary input jack for connecting audio devices via a patch cable, and is compatible with FlightLink, Lightspeed's in-cockpit recording app. Tango retails for $800 and is available in dual GA, LEMO (panel power), and heli (U-174) configurations.

Training on Permits

On 27 November the CAA announced that initial pilot training will now be possible in permit aircraft where the pilot being trained is the aircraft owner, or a joint owner. Current rules allow for a maximum of 20 owners of an individual aircraft.

If the training is for an EASA pilot licence or rating then it must be undertaken through an ATO or RF.

Tony Rapson, Head of the CAA's GA Unit said: "This exemption is part of our commitment to bring in changes in advance of any future amendments to the Air Navigation Order that result from our recent review and consultation which is part of our ongoing GA change programme to make our regulation of GA proportionate and risk based."

Welcoming the change Geoff Weighell, chief executive of the British Microlight Aircraft Association (BMAA) said: "[This] will enable part-owners of microlights to build and learn to fly in their own aircraft, encouraging new pilots and therefore providing a boost to training schools and aircraft suppliers. It is a winning result for the microlight community and other group owners in GA."

Biggin 03 ILS consultation

London Biggin Hill Airport plans to install an all-weather instrumented approach procedure (IAP) for aircraft landing at the airport from the south-west.

At present, all flights approach the airport from the north-east using the airport's precision guidance system but, in certain weather conditions (approximately 30% of the time), aircraft have to circle the airport in order to land from the south-west. The planned installation will avoid that circuit and permit aircraft arriving from the south-west to make a more direct approach.

Biggin Hill is conducting a wide-ranging consultation which will run until mid-February 2016.

"We hereby invite you to respond to the consultation as a constituency, local government, interest group or user group representative," says the airport.

The consultation document that is both detailed and technical, including a graphical illustration of the proposed flightpath, is available at: www.bigginhillairport.com/ACP.

how light?

DC PRO-X

The ultra-lightweight DC PRO-X headset with supra-aural, rest-on-ear design weighs just a little over 0.2 kilograms. That's not much more than this magazine you're holding in your hands. One of the lightest, most comfortable, full-featured ANR headsets you can buy. But despite its light weight, we haven't sacrificed durability with a rugged, magnesium alloy suspension system. And you'll also get seamless Bluetooth® compatibility for your phone and electronic devices, and outstanding Hybrid Electronic Noise Cancellation. All for hundreds of dollars less than comparably equipped ANR headsets.

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GA News Roundup (continued)

Government responds to airfield petition

On 9 November the Department for Communities and Local Government (DCLG) posted its response to the 'Airfield not Brownfields' petition, set up jointly by flying associations. It stated: "National policy and guidance recognises the importance of airfields, we will work with the aviation sector to ensure the current policy relating to development on airfields is better understood." For the full response please visit: https://petition.parliament.uk/petitions/106779. At 100,000 signatures, the petition will be considered for debate in Parliament.

LPV approaches

AOPA UK is developing a plan to bid for EU funding in support of LPV approaches for GA aerodromes. The proposal if we are successful could mean up to 60% of the costs being paid via European funds. AOPA does not know the outcome of its application until Jan/Feb 2016 so at this stage is seeking expressions of interest / letters of intent to be involved.

Reporting rules

The CAA has welcomed new Europe-wide occurrence reporting Regulation which is both harmonised and adopts 'Just Culture' as a cornerstone of new scheme. It says ground handlers, maintenance engineers and private pilots are among those bound by the new rules.

The change establishes a common process across the EU for submitting reports which will allow the industry and safety regulators to identify and tackle specific risks and trends more easily.

The incoming European Commission (EC) Regulation updates the UK's existing Mandatory Occurrence Reporting (MOR) scheme, which has been contributing to the industry's knowledge of aviation risks, since 1976. Over four decades 'MORs' filed by the aviation industry have made a valuable contribution to UK flight safety.

The new rules came into force on 15 November 2015, will enable those involved in aviation, "including private pilots and ground handlers", to file occurrence reports more efficiently either via an online portal – which will be available shortly - or through their employers' internal reporting system. Until the EC-developed portal is available reports can still be made through the existing MOR process.

Pilots, owners and operators of Annex II aircraft, non-EASA certificated types such as microlights, vintage and ex-military aircraft, are not required to report under the new rules, but are nevertheless encouraged to do so.

CAA 60-day Update

Significant progress continues to be made to make regulation of the UK's General Aviation (GA) sector more proportionate and evidence-based, the UK Civil Aviation Authority (CAA) said today.
In the sixth regular update to confirm its work in the area the CAA said that in the last 60 days it had:

• Helped balloon and glider pilots meet the need for aircraft radios to work on 8.33Khz spacing from 1 January 2018 by allowing certain 8.33Khz hand held transceiver radios to be used in balloons and gliders

• Issued an exemption to the requirement for balloon pilots to hold a Radio Telephony Operator's Licence

• Presented CABRO Aviation (a registered training facility based at Aberdeen Airport) and Helipaddy (a helicopter pilot development, skills and training organsiation in west London) with Pilot Recognition for Operational Upskilling and Development (PROUD) endorsements under the CAA's new good training provider scheme. The PROUD initiative aims to improve the general skill level of private pilots, particularly recently qualified PPLs and NPPLs.

• Launched the final consultation for the review of the UK Air Navigation Order on 24th September 2015. This closes on 4th November 2015.

• Started analysis of the responses received from the experimental category consultation which has now closed. The initiative is planned to be launched at a Royal Aeronautical Society event on 16th November 2015.

• Introduced a new alternative EASA PPL(H) and LAPL(H) theoretical knowledge syllabus that is more suitable for today's flying environment. It has been devised in conjunction with some of GA's leading instructors and training experts and is available to use now. This initiative has been implemented in advance of the 2016 revision of the ANO. It includes aircraft flying with a National Permit to Fly.

• Issued an exemption (in advance of the 2016 revision of the ANO) to allow joint-owners of non-EASA aircraft, who wish to pay for flying training in their aircraft, to use airworthiness requirements for a private flight. This includes aircraft flying with a national Permit to Fly.

Maintenance rules

The UK Civil Aviation Authority (CAA) has begun advising owners of General Aviation aircraft certified by the European Aviation Safety Agency (EASA) of changes to maintenance rules. In the future owners of these aircraft not being flown commercially will have a number of maintenance options. The existing UK Light Aircraft Maintenance Programme (LAMP) will be phased out as it does not comply with EASA requirements.

The initial phase out of LAMP, covering EASA certificated aeroplanes with a maximum take off mass of 1,200kg or less, will begin in 2016. Owners have a choice of moving to:

- EASA Part M requirements
- The new Minimum Inspection Programme (MIP), where owners can self-declare their aircraft maintenance programme, or
- A programme based on manufacturer's recommendations.

Regardless of the option chosen it must be specific to the aircraft and include a declaration signed by the owner accepting full responsibility for the programme (if the maintenance programme is not developed by a maintenance organisation). The move should be completed by 31 January 2017.

Before making any decision maintenance organisations and engineers should be consulted on the best option. The CAA is in the process of briefing all Part M maintenance organisations on the changes.

As a result of the changes an aircraft's annual inspection and the issue of its Airworthiness Review Certificate can be done at the same time, by the same authorised engineer from the Part M Subpart F or Part 145 organisation, as long as the same engineer carries out the airworthiness review. The maintenance programme itself will also be subject to a review by the maintenance organisation to ensure it is appropriate.

A second phase out of LAMP covering EASA certificated aircraft with a maximum take off mass between 1,200kg and 2000kg (and helicopters certified for up to 4 occupants and up to 1200kg MTOM) will start in 2017 with a year to transfer. This is pending the release of Part M Light which is expected to introduce the new process for these aircraft. EASA aircraft between 2000kg and 2730kg will also be impacted.

The CAA has also committed to review the UK-specific rules for Annex II aircraft. The Light Aircraft Maintenance Schedule used by microlights, kit-builds etc may also be aligned to Part-M rules as a result.

Comment on new maintenance Regulation

On the 27th July a new EU Regulation entered into force, EU 2015/1088. It is related to the work put down by the General Aviation Task Force in Cologne. The regulation allows for some important alleviations for ELA11 non-commercial. Here is some information for CAMOs and Maintenance Organisations:

How does this affect a CAMO?

- The regulation introduced the self-declared aircraft maintenance programme. This enables the aircraft owner to make deviations from TBO, Service Bulletins and other non-mandatory service recommendations. By doing so, the owner is also responsible for his/her decisions on deviations. The CAMO may not challenge the decisions nor become responsible for the consequences of the deviations. When conducting the airworthiness review a CAMO verifies that maintenance is done according to what is stipulated in the AMP, just like earlier.
- To be able to review a self-declared AMP you will have to change your CAME (Continuing Airworthiness Management Exposition). It will be a minor change with added instructions for reviewing this kind of AMP. Ask your CAA for guidance if you are uncertain.

How does this affect a Part 145 or M.A. Subpart F Maintenance Organisation?

- A maintenance organisation can obtain authorization to do airworthiness review and AMP review (only self-declared). Authorization requires compliance with certain conditions that can be found under M.A.901 point (l).
- It requires changes in your MOE/MOM (Maintenance Organisation Exposition /Manual) and an application for extended privileges and change of the maintenance organisation approval certificate (Form 3).
- The regulation introduced the self-declared aircraft maintenance programme. This empowers the aircraft owner to make deviations from TBO, Service Bulletins and other non-mandatory service recommendations. By doing so, the owner assumes responsibility for his/her deviations and your organisation may not challenge the decisions nor become responsible for the consequences of the deviations. When conducting the airworthiness review you should make sure that the maintenance is done according to what is stipulated in the AMP.
- The Competent Authority must be notified if defects are found during the annual inspection and the airworthiness review that can be linked to decided deviations in the self-declared AMP.

There is no doubt that this is the future of light aircraft maintenance; the new Light Part-M, that will hopefully enter into force during 2017, will most likely include further alleviations and more authority being transferred to independent certifying staff, Part 66. IAOPA believes that these new rules will reduce the cost of maintenance without adding risk and hence increase the market for the benefit of the whole industry. More aircraft will become airworthy which gives maintenance personnel and organisations more work and a brighter future.

Niklas Larsson, IAOPA and AOPA Sweden

Dubai Airshow

This year's Dubai Airshow (12-16 Nov.) was another grand affair but was less exciting than the last event in 2013, when Emirates, Qatar Airways and Etihad went on an ordering spree for airliners. Also there were fewer GA aircraft, and fewer top executives from GA companies - partly because the annual NBAA event took place in Las Vegas only a week later. However Emirates shifted its emphasis to training pilots for its burgeoning fleet, ordering Cirrus and Embraer Phenom aircraft (pictured above). Some 22 SR22s and 5 Phenom 100Es were ordered by Emirates Flight Training Academy, which is currently being constructed at Al Maktoum International Airport (where the airshow was held). The value of the order at list prices would amount to $39 million.

Wellesbourne Mountford

Wellesbourne Mountford (EGBW) was the winner of the 2015 AOPA Airfield Award. It is facing the usual planning threat with uncertainty over its future likely to continue into 2016.

A picture tells a thousand words and so it is for our pilot readers it is extremely useful before visiting an airfield to be able to envisage what it will look like,

Sadly when AO&P visited Wellesbourne Mountford we had to drive due to thunderstorms, though they cleared somewhat later on. It was a good opportunity to test Jeppesen's Mobile FliteDeck VFR, however (as featured in the August issue of the magazine).

The aerial pictures were taken on the way back from the Isle of Man TT in June, when there wasn't time to stop, so we are hoping to stop off there in early 2016. Meanwhiile the airfield continues to be under threat as a possible "Brownfield" site with developer (Gladman) hungry to get their hands on the land.

A walk along the Wellesbourne flight line takes you past Warwickshire Aviation (a most friendly aviation maintenance company) and past On Track Aviation and Aeros Flight Training (specialises in commercial flight training to South Warwickshire Flying School, where proprietor and long-time AOPA supporter Rodney Galiffe expressed his pride at being right next to the resident Vulcan bomber XM655 (which is still occasionally started up).

Airfield manager Michael Littler finds himself between a rock and a hard place, but handles it very well. He has nurtured what is probably the most congenial atmosphere at any airfield we have visited – which would make it even more unfortunate should it all be lost. And unlike Old Sarum, there is no half-way house proposal where the airfield can be kept despite houses being built around it.

Wellesbourne Tower (Wellesbourne Information) and (below) the flight line with Vulcan at top.

It is perhaps the most sensitive situation we have come across, even compared to Old Sarum, because the very popular and supportive airfield manager (Michael Littler) is also a member of the family that owns the airfield, with many members of that family all round the world keen to cash in on the property development.

The airfield was established in 1941 as RAF Wellesbourne Mountford using 200 acrres of farmland acquired from Littler's family (Three Bridges Farm), though it was passed back to the family after WW2. It was used as the home of No.22 OTU flying Wellington bombers.

Wellesbourne lost 96 Wellingtons in operational and training accidents, while 80 airmen were injured and 315 killed. These comprised of 243 Canadians, 59 RAF, 9 New Zealand, 2 Belgian, 1 Australian and 1 WAAF. On 25th July 1945 22 OTU was closed after having trained over 9000 airmen.

The airfield has a short runway, 05/23 and the main, north-south runway (18-36), and has a small tower (Wellesbourne Information, 124.025MHz). There is also an unlicensed grass strip to the west of the main 18-36 runway..

Being 5nm to the east of Stratford, and south-west of the M40 (the other side from Warwick/Royal Leamington Spa) it is relatively easy to spot from the air.

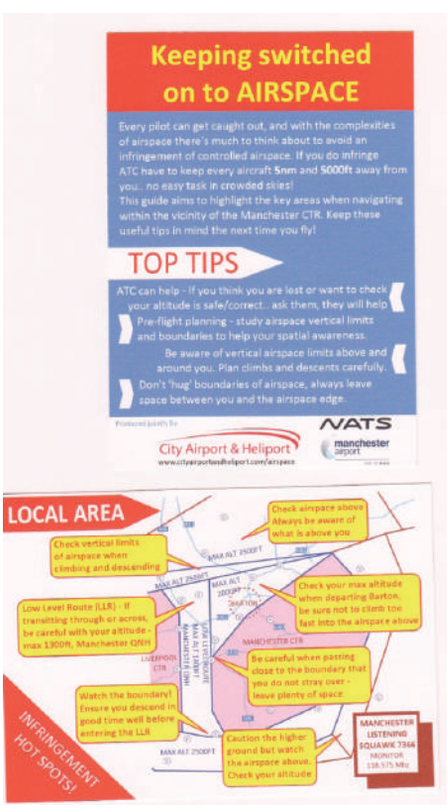
Manchester's low-level route explained

Stopping off at Manchester City Airport (Barton) en route from the Isle of Man to Thurrock near London was an iteresting and worthwhile exercise. AO&P had been asked by AOPA CEO Martin Robinson to write something about the Manchester low-level corridor as it had become evident to him that few pilots understood it. In usual pilot style, I assumed I knew everything about UK sectional charts but as we all know, that's the wrong attitude. This one is an example of climbing the learning curve.

The low-level route between Liverpool and Manchester is nestled beneath the Class D airspace, so you assume you can just fly under it in Class G. That is not the case, however, as it is still Class D but you are allowed to fly along it without talking to ATC as long as you Squark 7366 and monitor 118.575Mhz (Manchester), and maintain a max. altitude of 1,300ft on Manchester QNH.

Care had to be taken coming from the Isle of Man/north of Liverpool as routing to Barton takes you through the 1,300ft zone. A useful card has been issued (see left) but picking one up at Barton was the first time we'd seen it.

This is why we have reproduced it here. Also care with Barton's runway, it is not that long! But it is a very nice airfield



and not expensive. John Whittaker is the majority shareholder of airfield owner The Peel Group (which sold the Trafford Centre in 2011 but now owns Pinewood Studios and has stakes in other airports). He also has property in the Isle of Man and regularly fllies there in a helicopter.

The intention after visiting Barton was to interview Nick Duriez, the airfield manager, to learn mopre about the airfield, so this is on the radar for 2016. in the meantime it was important to highlight the low-level corridor and use some of the excellent pictures we obtained on the visit!

Above: the plans for the airfield are ambitious. Left, Old Sarum. Below: Aerial photo taken earlier this year showing existing housing.

Old Sarum faces new challenges...

There's nothing more topical at the mement than airfields and the threat from developers. While AO&P had heard of some tension at Old Sarum, near Salisbury, it was only when we visited in August that we realised this case is rather unique.

You could be forgiven for breathing a sigh of relief to hear that Old Sarum Airfield doesn't face imminent closure and that the owners are pro-aviation.

In fact what they are hoping to do is build more houses around the airfield and as part of the plan – which has been carefully drafted by architects – build new airfield buildings and renovate the hangars, which are in poor repair.

Detractors are in fact also pro-aviation but their concern is that building closer to the airfield will bring in lots of local residents who will oppose the airfield and this will lead to its eventual closure. They do not buy the argument put forward by the Canadian entrepreneur owner, Matthew Hudson, and Glenville Hodge, the former aerospace executive who is managing director of Old Sarum Airfield Limited (OSAL). Hudson has owned the airfield since 1986 in fact, and has been instrumental in its success to date.

Hodge indicated to AO&P that if approval is not gained then there is more of a threat to the airfield as another developer could purchase it, and build on all the land as it is "Brownfield."

Cessna 150 G-MABE is just one of many aircraft based at Old Sarum. Shown right in the tower is controller Sheena King.

Opponents of the planning have establlished a website, 'Save Old Sarum' although from what AO&P could gather there are other tensions as well that has caused this to be set up, and one can't help feeling that had Hodge and airfield manager Angus Beale taken a more consultative approach earlier they may not have faced such opposition to what on the face of it looks to be a fantastic plan for an airfield community.

That said, Beale owns a small strip of land near the end of the runway which he says locals have tried to use to walk their dogs etc, as if it is common land.

The primary authority is Wiltshire County Council but there are seven Parish councils with an interest in the case, including Salisbury City Council.

AO&P met with Tom Corbin from Salisbury City Council's planning committee, and his conclusion was that ultimately the plans would be rejected as the houses would be too close to the airfield. He also said that there was already a lot of housing around the airfield (as can be seen from aerial photos we took). There is also opposition due to concerns over it being near the Heritage Site. He also pointed to a lack of trust when OSAL said it was making a loss; Corbin said the accounts suggested otherwise.

The next step is a key meeting this month (December), after AO&P went to press. More in the February issue!

Old Sarum is now home to the Boscombe Down Aviation Collection.

Flight Test Report

Piper®

M350

JAMES WYNBRANDT was invited by a Piper dealer to fly the manufacturer's new PA-46 M350 for AO&P. The aircraft, he reports, "seals the envelope with ESP." This updated cabin-class single enhances safety in style.

The new PA-46 350 redefines Piper's pitch to well-heeled pilots considering stepping up to a pressurized, cabin class aircraft, making its appeal not with increased power and performance but enhanced safety. It's the definitive answer to concerns that flight proficiency experts, insurance companies and pilots have long raised about the challenges of transitioning to higher performance platforms, issues the original PA-46 helped spotlight.

Introduced in 1982 with a 310-hp Continental motor, the Piper Malibu created the modern cabin-class single. Over subsequent years Piper built out its PA-46 "M-Class" line, first transforming the Malibu into the Mirage with a 350-hp Lycoming TIO-540-AE2A turbocharged engine in 1988, then creating the flagship 500-shp PT-6A turboprop-powered Meridian a decade later, and finally the entry level, non-pressurized Matrix in 2007.

Sticking to that rough upgrade schedule, earlier this year Vero Beach, Florida-based Piper revamped and rebranded its marquee M-Class products: the Mirage is now the M350; the turboprop Meridian is the M500; and a new flagship has been announced, the M600, a 600-hp PA-46 turboprop with a new wing and boosted gross weight, expected to receive FAA certification by 2016.

The successful growth of the PA-46 family stands in contrast to its early history. A series of in-flight break ups and other accidents led the U.S. Federal Aviation Administration (FAA) to issue an Airworthiness Directive (AD) removing the PA-46 Malibu's certification for flight into known weather. After further testing of the design, the agency withdrew the AD. The break ups were attributed largely to pilot error, and subsequent PA-46 models exhibited no such accident patterns.

Piper has now put all such ghosts to rest with the signature upgrade of the rebranded fleet: Electronic Stability Protection (ESP). Incorporated into the Garmin G1000 Autopilot Flight Control System, ESP, in concert with the newly added Underspeed Protection (USP) and Overspeed Protection, acts like an invisible co-pilot when the autopilot is off, ready to take corrective action any time the aircraft approaches the edges of its normal airspeed or bank angle envelopes.

Could you refuse?

Gordon Ramsay, Piper program manager at Columbia Air Service, a Piper distributor at Connecticut's Groton-New London Airport (GON) in the U.S., invited AOPA UK to fly the M350 (and the M500) with him and experience the enhancements firsthand. On a sunny, blustery early autumn morning we walked across the ramp toward N350CS.

Sitting relatively high off the ground, its long wings uncluttered by engine cowls, the PA-46 has always had a sleek, eye-grabbing ramp presence. Beyond beefier landing gear and wings, and the three-bladed prop and LED lights, little has changed over the years on the Mirage/M350 airframe. Inside, interior enhancements are more noticeable. Piper has been upgrading the M-Class cabins in recent years, and recently hired Blokx Design, a consumer products design consultancy, to redesign cabin elements such as arm rests, cup holders and stowable table, creating a more integrated and aesthetically pleasing appearance. USB charging ports in the cabin and cockpit have also been added to the updated models.

The new Ms also offer a GSR-56 Global Satellite Datalink Iridium Satellite Transceiver. Piper intended the

Piper's philosophy with the new M-Series is to ease the pilot's transition to a high-performance aircraft, given that she might sometimes fly it solo.

option primarily as a conduit for getting in-flight weather in areas without access to U.S.-based services such as XM, but has found 90 percent of all buyers want the Iridium system, primarily for telephone and text communication.

The cabin enhancements complement changing ownership demographics. Historically, about 90 percent of PA-46s have been owner flown, but today the figure is about 80 percent, with one of five buyers sitting in the back, where they can appreciate the cabin amenities.

Up front, the Garmin G1000 flight deck is dominated by the two 10.4-inch Primary Flight Displays (PFDs) and center-mounted 12.4-inch Multifunction Display (MFD). An Aspen EFD1000 standby instrument has replaced electromechanical backup gauges and wet compass, unifying the appearance of the panel, and more importantly, easing pilot workload in the event backup instruments are needed, as the data presentation is basically the same as on the Garmin screens.

With the Garmin powered up, the injected Lycoming startup is standard. Switches for the electrical system and engine are on an overhead panel, another sign of having stepped up. With the prop spinning and avionics running, the air conditioning is typically the first system engaged, a welcome piece of standard equipment on an ISA plus 11C day like this one.

We planned to fly to Plymouth, Mass. (PYM) via Martha's Vineyard VOR (MVY), and programmed the flight plan into the G1000 using the GCU 476 keypad on the pedestal. The 96-nm journey would give us time to perform some maneuvers and check out the ESP en route. With the two of us and 85 gallons of fuel onboard, we were about 300 lbs. shy of the 4,340-lb. MTOW.

Taxiing at 1000 rpm develops enough momentum to steer without differential braking, though the pedals take some muscling. With flaps (ten degrees), pitch, and rudder trim set we took the active. If you're transitioning from a less powerful platform, Ramsay recommends starting the takeoff by holding the brakes and powering up to 2000 rpm before starting the roll while continuing to advance the throttle, with rotation at 75 to 80 kts.

Before departure, we'd engaged the new Coupled Go-Around function. Activated by a button in a thumb-size hollow on the left side of the throttle, once airborne, it sets the flight director's command bar in a seven-degree pitch up attitude, the desired climb angle for either takeoff or going around on a missed approach. Most importantly, Coupled Go-Around enables the M350 to fly a missed approach procedure without resetting the autopilot. USP makes the function possible, ensuring that should the pilot forget to add power on the missed, instead of pitching up into a stall, the nose will drop to maintain airspeed and provide time for recovery.

With gear and flaps up and climb power of 35 inches and 2500 rpm, the VSI tape bobbed around a positive 750 fpm and airspeed at 115 kts., while the Lycoming chugged some 35 gph. Scattered cumulus to the north stopped at the shoreline, and climbing eastbound over Long Island Sound the air was smooth. We'd be above the bumps by the time we turned back to the mainland from Martha's Vineyard.

The autopilot leveled us at 13,500 – no need to climb to the 25,000 service

The updated PA-46s also have an Automatic Level Mode, activated by a blue button in the center of the panel.

ceiling to confirm the top cruise speed of 213 KTAS. Performance remains the same in the 350 as the Mirage. We set cruise power of 30 inches and 2400 rpm, and leaned to about 21.5 gph. TAS crept past 180 kts.

On such a day, in such a machine, you want to keep flying as long and far as you can. Calling up the handy range ring on the map revealed we could make it to Canada's Cape Bretton Island, more than 500 nm to the NE, with the fuel we had onboard. We also had weather and traffic displays that put our mission capability somewhere in the airline category. The optional GTS 825 Traffic Advisory System and GTX 33ES digital transponder for ADS-B In and Out displayed conflicting traffic, vertical separation, and even N#s of ADS-B equipped aircraft on the MFD. The screen can also display returns from the optional GWX68 radar overlaid on Nexrad imagery, for finding optimum routes through weather at altitude. As Ramsay put it, "If you can't get over it, under it, or around it in this airplane, you shouldn't be flying." And now we had protection from loss of control.

Piper isn't the only OEM offering stability protection through a Garmin (or other) interface. It's available on the King Air 200, the Cirrus SR-22 beginning with this year's model, and experimental aircraft outfitted with Garmin G3X glass cockpits. Each OEM tweaks the system for their own aircraft. Piper's ESP engages at 45 degrees bank, and the resistive force reaches its maximum at 60 degrees. USP and Overspeed Protection both react to pitch and airspeed.

The system can be manually overridden by overpowering the resistive force, and the ESP, USP and overspeed protection can also be disconnected, for training, for example, through the Garmin Aux page. But as the default mode, full protection will be restored whenever the Garmin boots up.

The combined systems seal the operating envelope when hand flying. Normal maneuvers are unencumbered, but as bank increases, or the nose is pulled up or pushed down beyond what you'd use for normal operations, the counteracting force serves as a reminder and assistant, augmented by aural alerts and visual caution warnings on the PFD.

The updated PA-46s also have an Automatic Level Mode, activated by a blue button – a panic button, if you will – in the center of the panel. When pressed, it engages the flight director and autopilot, and restores the aircraft to straight and level flight. Together, these safety enhancements add peace of mind, confidence, and a sense of lightened workload, easing passage for the upward transitioning pilot.

Hypoxia is another safety issue facing pilots in this class of aircraft, believed to have had a role in several recent fatal accidents of high performance singles in the U.S. The M350 has multiple lines of defense. First, the panel has a built-in pulse oximeter and CO detector. It seems a bit odd to stick one's index finger into a socket in the panel, but you'll feel the firm grip of the oximeter's alligator jaws,

"On such a day, in such a machine, you want to keep flying as long and far as you can."

and see your blood oxygenation level and heart rate displayed on the MFD. The M350 also has a Hypoxia Recognition System, activated when the autopilot is engaged should the cabin altitude rises above 14,900 ft., as would happen in the event of depressurization. (Cockpit oxygen masks are stowed beneath the co-pilot's seat.) If no pilot interactions are detected in these circumstances, the system engages Automatic Descent Mode, descending the aircraft to an altitude allowing recovery from hypoxia.

Meanwhile the integrated pressurization system – yes, the Garmin runs that, too - simplifies regulating cabin altitude. Just turn it on before takeoff and input the elevation of

The M350 features Piper's new Coupled Go-Around function, which sets the flight director's command bar in a seven-degree pitch up attitude and enables the M350 to fly a missed approach procedure without resetting the autopilot.

your destination airport, and the system pressurizes and depressurizes the cabin en route automatically. At 13,500, our vessel was a comfortable 300 feet msl.

We were now 27 nm and 8:57 minutes from PYM with more than 13,000 feet of altitude to lose. Quick descents are easy in the M350, without touching the power, another big assist to the transitioning pilot. We dialed a descent rate of 160 kts. - gear deployment speed – into the autopilot, dropped the gear and popped the now-standard speed brakes, producing a 2,500 fpm descent. If you descend at the top speed with gear extended of 195 KIAS, you can lose 6,000 fpm.

Yet with the M350 you don't always have to climb up in the first place, unlike the turbine-powered M500 and the forthcoming M600, where it almost always makes sense to fly at FL280 or 290 for fuel efficiency, regardless of the winds. One of the strengths of the PA-46 line is the choice it affords pilots in the performance and price they're comfortable stepping up to. The addition of ESP and the other improvements introduced this year give pilots additional reasons to step up to the M Class.

Plymouth Municipal's ASOS automated weather was reporting winds from 310 at 14, peak gusts to 18. Nonetheless, traffic was using Rwy 24 rather than Rwy 33. Here's where things get easier for transitioning pilots: Its high wing loading and impressive rudder authority make crosswind landings less challenging in the M350 than in many of the four-place aircraft that buyers may be coming from. And pattern speeds are just a little higher than in today's high performance singles: 110 kts. on the downwind, 100 on base and 90 on final, coming over the fence at 85 kts. If you're not comfortable with the way things look, no problem: hit the Go-Around button and follow the command bars.

Vital Statistics: Piper PA-46 M350

Standard Equipped List Price: $1,155,500
Engine 350-hp turbocharged Lycoming TIO-540-AE2A
TBO: 2,000 hours
Propeller: Hartzell 3-blade composite

Wingspan: 43 ft.
Length: 28.9 ft.
Height: 11.3 ft.
Max. Takeoff Wt. (MTOW): 4,340 lbs.
Max Ramp Wt: 4,358
Standard equipped wt: 3,050 lbs.
Standard useful load: 1,308 lbs.

Max fuel capacity: 120 gal.
Max Cruise Speed: 213 ktas
Service ceiling: 25,000 ft.
Cabin Pressurization: Max Cabin Differential: 5.6 psid
Range with 45 Min. Reserve: 1,343 nm
Takeoff distance
Ground Roll: 1,087 ft. Total Over 50 ft Obstacle: 2,090ft
Landing Distance
Ground Roll: 1,020 ft. Total Over 50 ft Obstacle: 1,968ft

Trip Report

Navigating Norway...

Enthused by their trip to Iceland, Martin Cundey and Richard Berliand set off again for Europe's frozen north, with spectacular results.

The experience of flying is often punctuated with trips that are truly memorable and the few days we spent in Iceland during July 2014 ranked high in this category. So, when given domestic leave of absence for a week's flying at the end of May and first few days of June 2015, the question was whether we could make a trip that would live up to the standards of the previous year.

We decided that we would visit Norway – I had only landed there once, back in 1979 when en route for the Dawn to Dusk (we finished third out of three entries – flying a PA28R was not approved by the Tiger Club and the results reflected their distaste for modern aircraft). However, I recollect the rugged scenery and scores of small islands so it was time to get back there.

While researching where to land and what to see, we made a number of enquiries and Richard contacted Torkel Hasle, who he found via PPL IR. Torkel (who is also president of AOPA Norway) was very helpful with several suggestions; we also had ideas from two members of the Socata TB Users Group. One of them lived in Stavanger and wished to welcome us, so that seemed the logical landfall. The majority of surfaced airfields are run by the state-owned Avinor and offer a weekly take off/landing card (excluding Oslo) which is great value on an "all you can land" basis. Below 1,500 kilos it's a bargain £80, but above that up to 2MT it's around £200 – still great value when you are landing at larger airports, which abound in the country. Over 2MT you have to pay as you go! We also discovered that being members of AOPA qualified us for free parking so yet another reason to support the membership.

Above: On Day 2 we left Stavangar and stopped for coffee at Kristiansand, before heading for Molde-Årø (pictured below).

If nothing else, the convenience of the system is superb – you fly, land and depart later without any paperwork formalities. While on the subject, there was a suggestion that flight plans were obligatory but the reality is that when you make your first call for an internal flight, you add "negative flight plan" and are cleared accordingly. The Beech 76 is not the quickest aircraft but we decided it was ideal for the trip giving the reassurance of two engines over a lot of water, while the modest cruising speed would allow the sights to be enjoyed.

We planned to take full advantage of the landing card and spend 7 days in Norway, flying between 3 and 4 hours daily. The aim was to visit the

southerly point of Kristiansand and the most northerly point of mainland Europe at the North Cape, giving us the opportunity to catch the "Midnight Sun."

Day 1: And so it was at 08:00 on the 29th May we separately set off from Redhill to Gloucestershire. Well, Richard's Cirrus needed maintenance so he decided to have that done at RGV while we were away. It also allowed us to have a big breakfast at the café and partake of their reasonably priced avgas.

We departed at 10:45 in pouring rain and trudged our way across the middle section of the country, coasting out into the North Sea around Kingston upon Hull. Gradually the weather improved and as the oil/gas platforms came and went, we were looked after by Anglian Radar who provided a comprehensive service before we transferred to Norway Control. It was surprising how quickly the journey over the water passed: we were soon handed over to Stavanger, clearing us to join downwind for Runway 18 with the landing being completed after a total of 3h:30mins. Customs formalities were brief and speedy so we were soon outside and making a rendezvous with Ragnar, who lives in the city and is a TB10 owner. He generously agreed to act as our guide and chauffeur so we were quickly checked into our hotel, which had been pre-booked, and took a tour of the area – a great start to our adventure.

Above: This rainbow was in fact a full circle, although this couldn't be captured on camera.
Top of facing page: Richard and Martin (before departing Tromsø for the North Cape on Day 4).

Day 2: Ragnar returned us to the airfield where we accessed the aircraft through the flying club gate. We were shown how to use the self-service fuelling facilities and then he introduced us to the CFI, who recommended we take a slight detour on departure to see Pulpit Rock. It is one of the most visited attractions in Norway, towering 604 metres above Lysefjord. Despite a restricted view due to rain and drizzle, there were still plenty of people sitting on it!

We approached from the west along the fjord and then comfortably executed a 180 turn within the confines of the valley before returning to take photographs a safe distance from the spectacular formation, mindful of sightseeing helicopters operating.

Then we headed southbound to Kristiansand, crossing mountains and fjords. This being the first full day of Norwegian flying, we were open-mouthed with the dramatic scenery. and our camera was hard-pressed to keep up with all the pictures we were taking. After just over an hour we were on finals to land at our destination which has a backdrop of mountains on one side and the fjord on the other.

After a coffee we reviewed our planning as we had intended to continue east towards Sandefjord-Torp, which is not far from Oslo, but the sunshine we enjoyed with our refreshments would be replaced by drizzle so we decided to head north. Although our ultimate destination was Molde-Årø, we were hoping to route via Fyresdal Airpark which lies at the end of an large lake and in good weather has a fabulous approach.

A phone call to the airport failed to be answered and we started to wonder if flying into Fyresdal would not be possible in VFR today. Nevertheless we took off, optimistic that we might make it, but soon the space between the cloudbase and mountain tops diminished – and so did the viz – so we decided to climb out of it and levelled at FL070, where Norway Control were happy to have us on frequency.

Despite the size of the country the airwaves are relatively quiet and the R/T range is astonishing – probably due to transmitters and relays taking advantage of the high terrain. Norway Control is the default service and was a pleasure to work with. Once we had reached the west coast the cloud started to break up and we descended to 1,000 ft or below. It was then that we knew the future of

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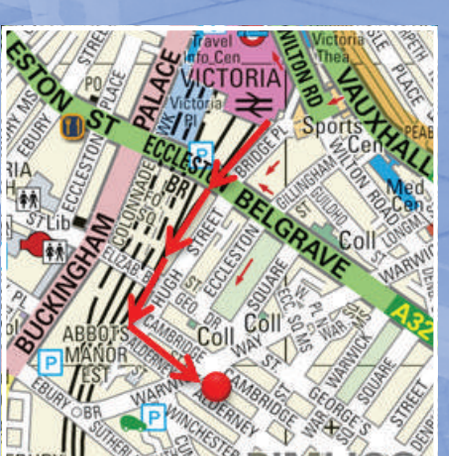

We were in the fabled "Land of the Midnight Sun."

our trip would be best served by staying on the west side of the country at low level where the viz was good and the scenery was at its best. We had read the cautionary warnings about cables spanning valleys which could literally spoil your day in a "flash" and so we proceeded with due respect for the risk.

We had the latest ½ mil topos (all three for Norway) and we also loaded Runway HD with the Norway charts along with SkyDemon, so we had a comprehensive moving map on which to track our progress. The paper charts were great for planning but the iPad came into its own enroute.

The flying duties alternated each day and the occupier of the right hand seat dedicated the time to verifying position, checking for obstacles and taking photos.

It was a truly memorable experience as we meandered up the coastline, cutting corners, passing through fjords and other openings, rarely flying above 1,000ft and seeing hundreds of small islands, many linked together with bridges and a scattering of houses on each – presumably used as weekend retreats.

After 2hr 50mins we were on finals to Molde-Årø where a welcome awaited and we were cleared to re-fuel. From now on we booked a hotel on arrival at our destination; being out of season, every request was successful. A taxi took us to our repose, which overlooked the fjord with views of its ferry traffic. We had decided to treat ourselves to decent dining experiences – and dinner that night certainly set the standard for the rest of the tour.

Day 3: Again it was overcast at dawn with light rain, so we departed at 09:35 local and retraced our track down the fjord for a few miles before heading north though a convenient opening between mountains. We revelled in the enjoyment and freedom of being able to journey at low level past isolated settlements, villages and a few larger towns set on the limited areas of land at the feet of the mountains which towered above both them and us. The topography is awe-inspiring and demands respect but while the clouds covered the mountains above the visibility beneath was good, even in the light rain.

We picked our way through valleys and fjords ensuring that we stayed on the windward side, always allowing sufficient room to execute a 180 degree turn should conditions unexpectedly deteriorate (at wind speeds above 15 kts turbulence can become both unpleasant and dangerous).

After a couple of hours we were back out on the western coastline with the Bronnoysund Traffic Information Zone (TIZ) approaching. A quick call brought a reply from a softly spoken lady controller who cleared us for a touch & go (T & G), which was duly carried out, and in return we received a compliment from her about our aircraft.

Another 20 minutes later we repeated the same at Sandnessjoen; the immediate approval of our request indicated that the controllers are pleased to hear from anyone passing by, and are not fazed to have strange English pilots taking advantage of their facilities.

A few miles later we crossed the Arctic Circle, and after a total of 3 hours we were speaking to Bodø, a combined military/civil airport with a vast runway. We approached from the sea and took advantage of the ILS to confirm all the avionics were functioning. Security was tight but not obtrusive as there was a contingent of Eurofighters parked on the far side of the field, and there were scheduled services operating.

We walked a mile or so to the town where we sat outside at the marina for a light lunch, observing the Great Gandhi Indian restaurant opposite – which at 67 degrees is rather further north than its counterpart in Reykjavik (making its claim to being the most northerly Indian eatery somewhat misplaced).

Tromsø and North Cape

Suitably refreshed we departed Bodø and after a T & G at Svolvaer-Helle being on our track we then overtook a naval frigate cruising beneath which reminded us that the battleship, and supposedly unsinkable, Tirpitz succumbed near our destination of Tromsø.

A short while later we were treated to the magnificent sight of a backdrop of snow covered mountains with the airport in front, where we landed after 1 hr 50. It lies to one side of the city, which is justifiably described as the "Capital of the Artic." After refuelling the Duchess we were conveniently parked near the GA security area before we jumped in a taxi to our hotel.

Day 4: We were in the "Land of the Midnight Sun" and in the morning we

Above : Our track out and back, and avionics panel showiing latitude 71 degrees north. Below: Bodø.

reached the airport ready to leave for the North Cape. A snag arose however: the port mainwheel tyre was partially deflated. A quick check of the valve after removing the cap suggested it was leaking and after prodding it a couple of times, the seepage stopped so the friendly fire crew re-inflated it, and we were airborne at 09.30.

Another epic trip followed, flying along fjords and out between offshore islands under overcast skies with slight rain but light wind and no turbulence.

Eventually the North Cape at 71°10'21"N 25°47'04"E became visible but it was covered in a "flat cap" of cloud, obscuring it and the visitors centre.

Honningsvåg-Valan instructed us to orbit as scheduled traffic was leaving – arrivals and departures follow the same route in or out of the fjord, where the localiser has a 56 degree offset. When cleared to make our approach we soon found out why! At the start of the approach it appears that the fjord terminates in a wall of towering granite and it is not until the last few miles that the runway comes into view. Although R26 is downhill, with our modest approach speed this was our choice and we gasped in amazement as we turned from base onto finals with the prospect of the mountain ahead of us.

Touching down after 1hr 45 we were warmly welcomed by the fire crew and awaited a hire car which we had pre-booked for the day at an astronomical £110 – still, they only have a few months in the year to make a living out of car rentals and having come this far we wished to see all we could.

The island has a population of around 2,000 mainly centred in the town, which seemed very pleasant and provided us with an excellent fish soup lunch. Then we took the 20-mile foggy drive, passing mountain sides with reindeer grazing, to the visitors' centre – which remained shrouded in low cloud. We were obliged to seek directions after parking only to discover the building, invisible in the fog, was just 200 yards away. The complex is extraordinary, having been cut into the cliff-face, and is a "must see" providing all sorts of exhibits and a great film show which compensated for being unable to see beyond the outside terrace.

The plan was to have a King Crab dinner in the town that evening and leave just before the airport closed at 22.40 so we could enjoy a daylight flight at midnight. Instinct prompted us to check the tyre and without going airside we could see that it was now fully deflated and so were we. A drive to the nearby garage revealed that they could supply a foot pump and tyre sealant – not ideal but at least it would overcome our immediate problems. Back at the airport we were met by the fire crew who were aware of our plight but greeted us with the heart-warming words "you are our guests and we will do our best to help you." While not allowed to touch the aircraft they made their tools and workshop available – they even offered a brand new pair of overalls to work in as the weather continued to rain.

So a return to the garage and this time we came back with puncture repair kit, patches and talcum powder so we could set to work. Jacks lifted the wheel off the ground, which was soon removed. In the warmth of the workshop the rim was split and the tube removed to find the tiny but irritating leak. Patch applied, new valve inserted and all checked then

Norway's Nordcapp (North Cape) was blanketed in cloud when we reached it on Day 4.

From Bodø we flew to Tromsø, "The Capital of the Arctic." The mountains were spectacular.

re-assembly was accomplished and order was restored. All in time to get to the restaurant slightly later than our booking but the crab was all the more enjoyable as a result of the drama.

Shortly after 22.30 local time we prepared for our departure off 26 executing an immediate right turn to avoid the mountainous terrain ahead which has a continual flashing light as a timely reminder and we exited the fjord at low level the way we arrived. Once out to sea we climbed to 3,000 ft where we were greeted with the glorious spectacle of bright sunshine. As we made our way back the clouds melted away leaving showers over the land with beautiful rainbows, sunshine out to sea and the occasional ship cruising serenely below us. What a magical and unforgettable experience, each day we did not believe we could better the previous day's experience yet this eclipsed everything.

A little after midnight we tracked towards Tromsø and the rainbow now just ahead of us described a complete circle, the city came into sight contrasted by the sun shining on parts and other areas in the shadow of the mountains. We landed, refuelled and had a taxi take us back to the hotel where words seemed inadequate to relive the experience.

Day 5: We started our way back south and although we were theoretically returning the way we arrived, there are so many variants that we never actually duplicated our track. Our destination was Trondheim and, at 4hrs 20, it was a long leg but once out of the fjords and following the coastline the sun emerged to give limitless visibility. We had the skies to ourselves and along stretches of open water we dropped to low level, revelling in the freedom we are so privileged to enjoy. To break the journey there were obligatory T & G's at Engeloy/Gradussan and then Rørvik-Ryum: as we approached Tower advised of a single gull at the end of the runway which flew off as we commenced our climb out at the upwind end. The jovial controller gave our T & G time and thanked us for our bird clearance services.

The response to our first call to Trondheim was slightly stilted as, believing we had received a handover from the nearby military base, we provided our call sign and squawk only to be asked who what and where we were. Maybe not as a direct result of our impertinent initial announcement we were nevertheless directed to the furthest VRP from the airport which by coincidence was subject to considerable turbulence. Then after landing our request for refuelling went unheeded but eventually we were able to upload what we needed and took a bus journey to the city centre which is some 20 miles away. If our airport experience was less welcoming than our previous experiences, we dined in style with five memorable fish courses and the hotel was equally pleasant.

From Tromsø the next stop was runway 26 at Honningsvåg-Valan island.

Day 6: Our last full day in Norway called for a 2 ½ hour flight to Bergen and after some post-breakfast exploring we departed at noon, our route taking us across the mountains to reach the western coast, passing near to our earlier destination of Molde. We chose to climb rather than risk transiting at low level and so sight-seeing was restricted until we descended out to sea before roughly following the coastline. We were rewarded with more spectacular than ever scenery.

Bergen-Flesland is a busy place with considerable traffic serving the oil fields, nevertheless we were quickly positioned downwind to land on the northerly runway and on arrival met by a "follow me" vehicle which escorted us to the GA parking area conveniently having its fuel farm adjoining. Our friendly escort whisked us to the coach station with advice about our return the following day and we were soon in the city and our expensive but less than salubrious hotel. Bergen is a definitely a "must see" with its World Heritage gaily-painted waterside timber buildings. The fish market supplied us with some marinated salmon to take home and our seafood dinner matched our Trondheim experience.

Day 6: Bergen is a World Heritage site.

We were slightly delayed at Honningsvåg-Valan with a flat tyre, before our return to Tromsø.

Approach to Lerwick-Tingwall Runway 20, where we stopped on the way back.

Scheduled Islander service at Lerwick in the Shetland Islands (see map).

After Lerwick, we had a tentative look at Fair Isle before heading south.

Day 7: We decided that we would make an early start as this time we would have to deal with the formalities of clearing customs and leaving the country. Additionally we realised that we had on our personage several items that would send x-ray equipment into meltdown.

On explaining our problem to a helpful official we were able to infiltrate the priority check-in section and presented ourselves defiantly at security. To our relief we were taken by a charming escort through all the channels and passed over to a driver who returned us to the aircraft. Departure was at 0810 local and 75 minutes later Shetland was on the horizon.

Soon we could see the lighthouse at quaintly named Muckle Flugga and made an orbit of both this and the

remote Out Stack. Then we turned back along the east coast and located Unst, being the most northerly UK airfield which warranted an approach. It was a shame that time did not permit a landing on the strip as it looked in sound condition and very inviting. There was much to do and so we continued south with fly-by's including Fetlar and Whalsay, before establishing finals to land on Runway 20 at Lerwick.

We were greeted with a warm welcome from Jim and his colleagues while formalities were minimal and landing fee acceptable. Our hire car arrived and we were on our way to explore the island. The good roads are traffic free so it was not long before we had reached the southern end at Sumburgh where the large airport is busy with oilfield traffic and the road closes when landings make it necessary.

We continued to Sumburgh Head which rises to a peak with a sizable lighthouse complex now run by the RSPB as the sheer cliff faces are a haven for seabird colonies. And what a haven! Even for those indifferent to nature's aviators, this is a spectacle not to be missed, with birds wheeling and diving in all directions – but the stars of the show are the comical puffins putting on virtuoso performances for their viewers.

Lunch was taken at a nearby hotel which is next to the Jarlshof Prehistoric and Norse Settlement. Our tour continued into Lerwick itself which was well worth a visit.

All too quickly the day had passed and as we bade our farewells to Jim and his crew, we commented that it was yet another highlight of the trip augmented by the warmth of our welcome.

We had been given the number of the lady manager of National Trust Fair Isle strip and were allowed to make a T & G on the promise that we would make a donation to NT so, having located the island, we positioned ourselves on the approach. This is a 500 metre strip and with rising ground beyond so we made our brief encounter before climbing away and heading south. Even then it was not all over as we crossed strip after strip ticking them off one by one as if we were working our way through Pooley's. The controller at Kirkwall was far too polite to challenge our sanity – he had probably seen/heard it all before. Then we passed east of Wick, talking to Aberdeen and Leuchars before landing at Dundee.

The next day we made our way back to Gloucestershire where the SR22 was ready for collection and we parted company for our respective destinations. But what an experience! Such a multitude of sights with each day exceeding what had seemed unsurpassable the previous day.

We realised it was impossible to achieve all our objectives as the weather in Norway can be even more capricious than in the UK, especially in the mountains, but by keeping to the western side of the country we reached all the destinations on our itinerary.

Trip Stats

Total flying time: 30 hours
Landings, 13; Touch & Go's, 7
Fuel consumed: 1,744 Litres
Average price in Norway: £1.41 per litre
Lowest paid in UK: Gloucestershire, £1.49
Highest fuel price paid: Dundee, £2.30/ litre.
Average hotel charge: £121.57.
Most expensive (and least impressive): Bergen, £156.37
Cheapest: Stavanger, £93.33
Best value: Dundee, £95 – superb room and good breakfast
Latitude difference between Kristiansand and North Cape: approx. 755 nautical miles. *(La Rochelle is a similar latitude difference to the south of Kristiansand).*
Latitude Difference between Out Stack and North Cape: Approx. 617 nm.
Difference between Out Stack and Redhill approx: 567 nm.
(Porto is a similar latitude difference to the south of Redhill).

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IAOPA Regional Meeting

Tarbes/Lourdes

3rd October 2015

Above: Among the speakers at the IAOPA meeting was Christophe Robin, Daher v-p engineering and chief designer of the TBM 900 (pictured inset with an example of the aircraft being rolled out of the company's factory in Tarbes). He took a swipe at the regulatory approach in Europe, where he says "they just took the rules for big aircraft and applied them to little ones." He questioned why so much time has to be spent on certificating aircraft when "it's not where the accidents come from"–so more emphasis should be put on pilot training, as pilots are usually the cause of the accidents. So Robin said Europe's GA industry was looking forward to the new less-onerous certification regime for smaller aircraft that was being formulated by EASA. Robin concluded: "|Today making light aircraft is almost impossible as the cost of cert is disproportionately costly… if you bring certification costs down it will bring the others into the market." Top: The Rosary Basilica in Lourdes, close to the conference venue.

When 30 delegates from 15 countries came to Lourdes for an IAOPA Regional Meeting the focus was on EASA, but a tour of TBM's factory in Tarbes reminded the visitors what many private pilots aspire to.

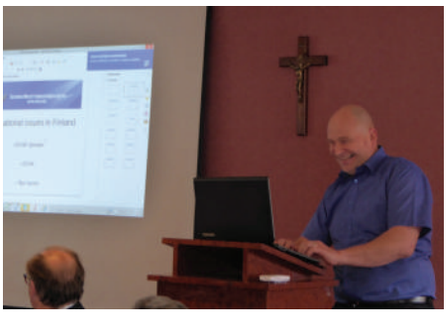
Emanuelle Davidson from AOPA France, which was hosting with TBM, asked about cost-sharing, something that has become a big issue in many Eurooean countries with EASA effectively blurring the lines between commercial and non-commercial operations.

Martin Robinson, AOPA UK CEO and IAOPA v-p for Europe, opened the meeting by saying that the purpose of Regional Meetings was "to meet together twice a year to discuss common issues facing our national affiliates." But IAOPA can't do all the work by itself, he stressed. "We try to achieve a common position [but] this is not always possible. So the aim here is to take any IAOPA position back to individual States."

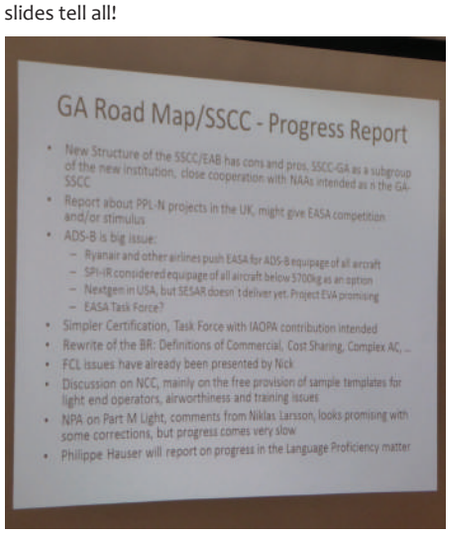
He said IAOPA needed to talk to regulators with the common position of IAOPA Europe, and added that IAOPA could "help you [regional affiliates] if regulators need further education/ understanding."

"Europe is not 100% harmonized," he noted. "It does not have a common legal system or a common taxation system. And where there are Directives it is up to States to decide how to implement them – unlike Regulations, which are binding. But in the main over the years, we've done a good job."

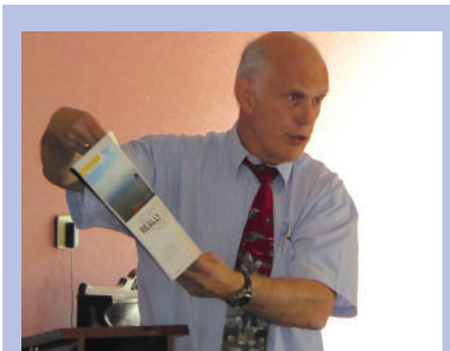
Robinson added: "We also need to be able to take information from you and to broadcast that information throughout Europe." He noted that many had raised the issue of cost sharing. "There will be different national experiences as to what cost sharing is. There won't be any right or wrong, just differences. So it will be difficult to reach a consensus



Above, from top: Esa Harju of AOPA Finland explains that ground self-handling is a struggle in his country; Martin Robinson speaks with Vladimir Turin, who flew his Robinnson R44 helicopters to the meeting from Russia; Germany's Michael Erb explains his position on the SSCC; and Jacob Pedersen from Denmark says cost-sharing needs clarifying. Below: The slides tell all!



Above: Martin Robinson (centre) sits alongside IAOPA secretary general Craig Spence, while Nick Wilcock (at the podium) preaches to the converted about EASA's plans to allow training outside an ATO. Below: Delegates from Austria, Romania and Greece, among others, listen intently.



Bob Darby from the UK explains recent LPAT ADS-B equipment trials, and brought a demo unit.

on something like this. But we need to understand and communicate these differences."

"In UK we have got the CAA to accept EASA Regulations without any change into national legislation. We call it "non gold-plating." He invited delegates to use the UK as an example on the issue of gold plating. "Regulators should not embellish what EASA has to say. EASA does not have the power to stop States going further [than stipulated]. EASA conducts an audit of your State to make sure that it's in compliance.

Robinson said that GA Roadmap work was "incredibly important...but we need to know when States are going beyond what EASA asks. EASA is also interested as it want to see rules applied uniformly. This is good for safety too. Whether you're flying in Holland, Austria, UK, Germany, Greece, wherever – you know it's the same. But in Greece there are still no airspace classifications, for example!"

"Myself, Michael and Jacob need to be kept informed where States are applying Regulation more than EASA intended," underlined Robinson.

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IAOPA secretary general Craig Spence gave an update on ICAO activities. "[We have] been able to get changes to say that R&FS is only required at commercial service airports. EASA is also looking at incorporating those changes. Basically this says that proportionality should be considered. Tragically, the burn-through time [for GA aircraft] is 17 seconds; for commercial aircraft it is 2.5 minutes. So unless fire service can get there in 17 seconds, it really doesn't do anything!"

Spence noted that there had also been "a lot of work going on with UAS – which are outstripping the ability of regulators to legislate. One million UAVs are expected to be under Christmas trees this year! There are no standards on these aircraft BUT they are being considered part of GA By EASA etc! There are non-pilots with flying machines up to 50kg near airports that have the possibility of killing someone." Martin Robinson noted that in China you have to register a drone to your mobile phone. Spence said every airfield and sensitive area should be 'geofenced'. He said ICAO "is far behind… which is why we're working with EASA, FAA and even the RPAS operators," said Spence.

Guest speaker: Matthew Day, Haywards

Matthew Day, a director of Haywards Aviation, gave a presentation on aviation insurance, saying: "We've been concerned in recent years about the amount of liability insurance bought by GA owners. Traditionally you buy a policy for let's say €3,5 million and have cover for 90,000SDRs for passengers – as insurers paying less for passengers you get lower premium but we think this is a dangerous route to go down i.e. policy with inner limits (of say 100,000 per passenger).

If your aircraft flies into a light airfield and into a hangar the physical damage could be $1m but the liability to the injured etc could be much more. If you have a combined limit and medical expenses go over 100,000 per passenger.

So the trend to purchase policies that limit cover, over the past 2-3 years, and could become personally liable for ongoing costs.

Also hull loss – only get what insured for, and if aircraft is over-insured, company may elect to repair it.… So would not advise you don't under-insure. There is a danger of getting the wrong value. Better to be over-insured as it bites you more if you're under-insured.

If organizing an air show, air meet, fly in etc be very aware of insurance cover, and alert to the possibility of incidents.

He said there was "lots more I planned to say but I've only got 15minutes! For example on instructors, drones etc."

He said "Insurance follows the evidence… until we have an accident involving a drone the regulations won't really kick in and insurance industry won't be able to assess it." But he noted that in the UK model aircraft flyers could get £1m of cover for only £10!!!

Martin Robinson notes that AOPA UK has "a close working relationship with Haywards. Unlike other brokers they do support the industry, help with safety campaigns… and in educating pilots about safety issues…"

A question was posed relating to examiner insurance, to which Day responded: "I've no idea why an instructor purchases instructor liability insurance, there is no need for it – as you are doing it for a commercial organization that will be liable and have cover. [In the US the situation is different, as there is non-owned aircraft liability insurance, he said].

"And if you are instructing a pilot who approves you personally to instruct them, and is happy with that, you are brought into their cover! So there are no circumstances in the UK where you would need 'instructor' cover."

PILOT STORE VOUCHER

The PIlot Store London (see page 32) is offering a 10% discount on its range of items from Design4Pilot for the month of December, to be used in-store only by presenting the voucher above.

Airliner Case £129.95, Cross Country Bag £54.95, Pilot Jacket £89.95, Polo Shirt £19.95 and Pilot Cap £14.95

Design4Pilot is headquartered in Salzburg, Austria and has been involved in the design and manufacture of pilot accessories under the PILOT brand since 2000.

The products they offer are exceptional in their quality and this often makes the difference as to whether or not a product is useful. Furthermore, they place great emphasis on eco-friendly production, meaning that wherever possible they use recyclable and eco-friendly materials in their products and packaging.

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BOSE OFFER

The Pilot Store London is also delighted to share with you a special Bose Winter Promotion, running 28 November 2015 through 3 January 2016.

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Kudu and Impala greet the Sling as it parks up at Mutendele Airfield, half an hour's flight north-west of the Zambian capital, Lusaka. The image at top shows the Sling as pilot Edmund Farmer (owner of charter operator SkyTrails) turns on to final (having found the airstrip).

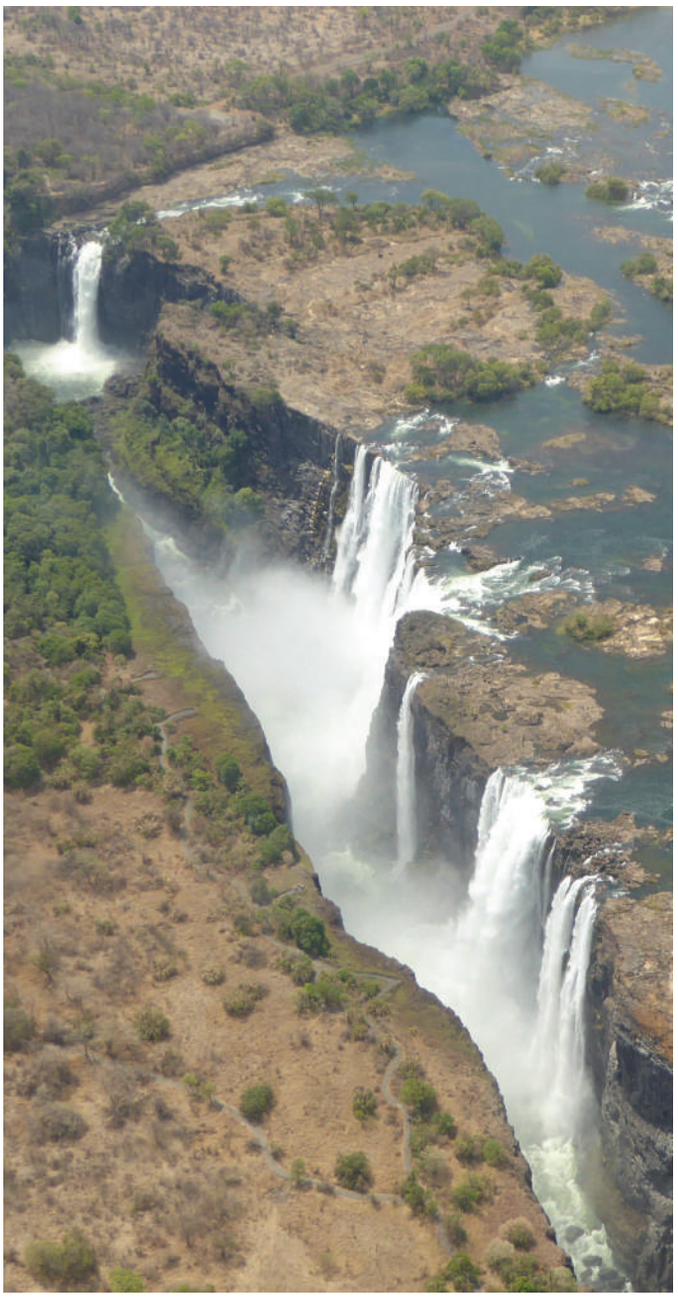
Below: Landing back at Lusaka's Kenneth Kaunda International Airport as an Emirates Airbus A340 waits to depart. Note the altitude, more than 4,000ft. A true test of 'hot & high' operations, the South African Sling, with its Rotax 914, did an enviable job of carrying four grown (overgrown!) men. Bottom: the Sling back at base in the former Zambian Airways hangar. The national carrier was closed in the 1990s, with Proflight now being the main indigenous airline.

When 'The Aircraft Factory' in South Africa built this early Sling (serial number 4) it flew it around the world – the maps are on the wings.

GA in Zambia...

Although Zambia is a land-locked country it does boast the mighty Zambezi River, Kariba Dam and the even mightier Victoria Falls (known locally as the Mosi-oa-Tunya, or 'The Smoke That Thunders'). AO&P happened to be down in Zambia after the Dubai Airshow (it is easy with Emirates!) and took the opportunity to take a Proflight Jetstream flilght down to Livingstone. A visit to see United Air Air Charter on their little Baobab-topped hillock near the Falls ended in CEO and chief pilot (pictured below right) Ignatius Lindeque taking us for a flight in the company's Airbus Helicopters (Eurocopter) EC120 Squirrel. An impressively manoueuvrable machine, the company also has two EC130s, which are six-seaters not four.

At nearby Marimba Airfield, a slightly more affordable way to see the Falls and the game park is by taking a flight at Batoka Sky in a Robinson R44, or in a microlight. These were parked up due to a passing thunderstorm, unfortunately. The Zambians were praying for the rainy season to start. Pictured right is the Zimbabwe side of the Falls; there was no water flowing over the Zambian side (not pictured, but situated below right) but the advantage is the lack of spray, which obscures this Natural Wonder of the World when viewed from the ground.



At one time the Falls were viewed from the air during Tiger Moth flights from Sprayview airfield in Victoria Falls town, Zimbabwe. Sadly the airfield closed.

Landing at Baobab Ridge heliport.

Letters

Airfield Petition

I noticed in the latest AOPA magazine the column about the GA airfield petition regarding the Prescott mess up with airfields being labelled as Brownfield sites under the planning rules. I went online to join the petition. Sadly, I noticed our petition at 17,000 votes while "make canabis legal" has 225,000 votes. I think collectively we deserve what we get!

John Scott

Self Declaration

Thanks for producing a great journal – keep up the good work!

I find the interpretations we get about various regulations in our journal very helpful. Please help with an explanation about the New EASA Maintenance Programme that was mentioned in the October issue. What does "Self Declare" mean? Does it mean you may record your chosen risk-based programme and share/agree it with your maintainer? Or does it mean sharing also with EASA and getting its agreement? How much programme variability is allowed (in agreement with one's maintainer)?
[Readers are referred to page 18 - Ed.]

Phil Shepherd
AOPA member 7651, Wiltshire

Windshear

I have difficulty understanding Kristjan Arnason's letter in the August edition of the AOPA magazine entitled 'Self-made windshear'. He states that making a low level 180 degree turn from into wind to downwind can cause an aircraft to stall. Surely the aircraft is only in contact with the mass of air it is flying in, the aircraft's behaviour will remain the same within that mass of air regardless of whether it's stationary or moving.

Only the aircraft's track and speed over the ground will be affected by the wind's direction and speed. I agree that in a low turn the varying speed over the ground might give the illusion of varying airspeed but that's what the ASI is for, the same applies to nailing the correct air speed on approach and not the apparent ground speed. If I'm missing the point with this old chestnut, an authoritative future comment or article in the magazine would be very much appreciated.

Yours sincerely,

Michael J Newman

Grass roots

This afternoon I received a copy of your AOPA magazine and found it to be top notch compared to what our COPA distributes. I found that you have made the magazine quite physically attractive with the glossy paper and the layout of the articles.

I found the content of the articles quite informative to the grass roots pilots and all the advertising geared to the whole flying community very appropriate. I found the columns and articles quite newsy and have me learning about aviation the way it is done in Britain.

Thank you for your magazine and I plan to use it at our board meeting next week to show the rest of the members how I feel our COPA publishing should look.

Sincerely,

Philip M. Englishman
aka Av8rphil

Stick to SOPs

If you have a set of SOPs (standard operating procedures) stick to them. If you have no SOPs then think about adopting some and sticking to them. The other week I took off from Earls Colne for a 10 minute mechanical check. Before departing I topped off the tanks, set up my yoke mounted GPS, took my bottle of water and put my Pooleys nearby. I originally wasn't going to do any of this but for some reason my SOP decipline engaged.

"Reading your great magazine in Ottawa at or COPA board of directors meeting." Philip Englishman is pictured reading AO&P (the furthest from the UK we have yet received!)

Boy, was I glad. Immediately after take off as I climbed out of the circuit I went into unforecast cloud at 900ft. I looked back at the runway, it had disappeared. A sudden cloud base of 300 feet rolled in unforecast over Essex. I circled the ATZ for half an hour but no sign of improvement. I contacted RAF Wattisham and said I was going to try Elmsett. A descent through cloud brought no joy so back up on top. Wattisham then offered me an ILS into their airfield which I gratefully accepted.

A safe landing, a car ride back to Earls Colne and picked the plane up the following day. No charge for the diversion [Strasser Scheme, we presume? –Ed.] and a very efficient and friendly welcome.

Robert Hill

Seeking Sense

I am writing to issue a warning to those who, like me, might see their years in aviation outnumber their waistlines not only in inches but also centimetres.

This letter is also sadly a very large indictment of the CAA Personnel Licensing Department who I have to say based on their performance of recent weeks are not fit for purpose and are in need of radical overhaul and reform.

The problem centres on my wish to obtain a single pilot, single engine instrument rating to enable me to fly my Piper Archer both VFR and IFR in Europe. Having just retired as an airline Captain on a JAR-OPS ATPL with a multi crew IR, all I wished to do was renew my IR before retirement, allow my class one medical to lapse and continue flying on a class two medical using PPL privileges into the future.

While not a problem encountered

by the CAA every day it should not have been difficult to accommodate. However, that is not how aviation works. To achieve this I had to apply not only to have my IR put on my licence, but to apply for an EASA ATPL conversion and then supply evidence of everything I had done since learning to fly in 1970 to prove I could retain the privileges that I had enjoyed to date.

Poor record keeping

Having delayed the whole process three weeks by using an out of date email address and ignoring the data I supplied on my application forms, I discovered that little if anything of licence history issued pre JAR-OPS is retained by the CAA. They had no record of me ever having had a single crew IR despite me passing the test in 1977 and having it last renewed in 1993. Luckily I still had the original Certificate of Test that proved the case. They also failed to realise that I already had a single engine piston rating, and had been the holder of one for many years. The resounding message I must therefore send out to members is 'Don't throw anything away'.....Ever!

However to cut short a story lasting five weeks, several sleepless nights, more phone calls and emails than I can remember along with receiving a threat of financial sanction if I did not supply information that had been sitting on their desk for a month I finally reached a point where I had lost hope of ever seeing my licence. As I considered and drew up a formal complaint I thought of contacting AOPA head office to ask if such an action was worthwhile. A short conversation with your office staff, an email to a contact in licensing forwarding a draft of my complaint and lo and behold my licence was processed within forty eight hours.

My thanks must go to AOPA in being able to sort out what had become a phenomenal mess. I hope that my problem and its speedy resolution will inspire others to value their membership and use the Association for its main purpose. To support General Aviation pilots in the UK.

Yours Sincerely,

David Barrington-Bullock

G-AWUT leaves Sandtoft, near Finningley, Yorkshire. She now resides at Redhill, flying regularly.

Thanks AOPA!

Hello Martin [addressed to AOPA CEO Martin Robinson],

I have been busy, with Steve Slater and the office at AOPA helping, getting my local MP Ian Austin on side in the airfield closure fight. Ian has taken the issues on board and is very keen in trying to help with our fight to retain our airfield infrastructure in the UK.

I would like to thank our ladies in the AOPA office for sending Ian a copy of June's issue of our magazine, with Steve's article on airfield closures, at very short notice. Thank you so much.

This was to give Ian more facts as to the issues and also give him a flavour for G.A. in the U.K., which he was totally unaware of, he should find the advertisements for aircraft with the sort of costs involved informative, as this was one of Ian's many questions on the tour of Halfpenny Green Airport I gave him a few weeks ago.

The flight I planned for Ian on the day had to be postponed due to the weather and Ian's time constraints, but this is pending for another day.

Thank you also, Martin, for all your hard work for AOPA and aviation.

Kind regards,

Roy Targonski

The famous plane!

My husband Ron was reading Freddie's article (The Airfield Experience, October 2015 edition) when the Cessna C150 G-AWUT caught his eye. This aeroplane keeps turning up in our lives from time to time, so you can imagine our surprise when we saw it in the AOPA magazine, looking as smart as ever!

Ron bought the aeroplane from Mr Barrie Spafford in March 2008. He transported it on a trailer, minus the wings, from Sandtoft Airfield to Airtech at Skegness Airfield, where it had a complete overhaul.

He then flew it to Strubby Aviation Club and it spent a year there before he decided to sell it on. He already owned a Reims Cessna 172 Skyhawk and he found that he did not have the time to spend flying both aircraft. It was purchased in May 2009 by Mr William Bagnall from the Isle of Wight.

G-AWUT is quite a celebrity. One afternoon while watching "Mr Tumble" with my granddaughter on TV, I recognised G-AWUT as the aircraft which was used to take a disabled child flying. At a later date it was featured in an episode of 'Touch of Frost' when it was used in the storyline by a gang of drug smugglers! So you see G-AWUT has had quite an interesting life and it's good to know that it is still flying.

May I just mention that AOPA gave Ron and his colleagues excellent service and advise several years ago when they were establishing the Strubby Aviation Club. He would recommend that all pilots who own their aircraft should join AOPA because of the many benefits the organisation offers to its Members.

Yours sincerely,

Trish Larder

Ron & Trish Larder

Changing Drivers

The racing driver on page 21 of the October issue (Goodwood Revival, opening of Shell's new fuel station) was in fact John Surtees, and not Sir Stirling Moss as stated.

Book Reviews

Battle of Britain Memorial Flight 1957 To Date: Operations Manual

by Keith Wilson

ISBN 978-0-85733-516-6

Haynes Publishing, Sparkford, Yeovil, Somerset BA22 7JJ; hardback 8½in x 11in, 157 pages, illustrated; hardback, £25.

When is an 'operations manual' not an operations manual? Haynes launched its manual-themed series years ago, each volume being presented as a superficial maintenance manual with historical content, concentrating on a specific aircraft type. Now it seems to include books in which maintenance forms a decreasing percentage of their content.

Nonetheless, this is an entertaining and absorbing volume, covering the history of the celebrated Battle of Britain Memorial Flight (BBMF), its aircraft, the teams of servicemen that maintain and fly them and the work they do, the private companies that play a vital part in keeping the aircraft airworthy, and the Flight's public appearances.

This is an informative book for those with a specific interest in preservation and the operation of vintage aircraft, and for non-specialists who are fans of the classic RAF aeroplanes of World War 2.

With so much of its content devoted to Spitfires, one would expect the author to get 'Vickers-Armstrongs' correct, but it appears repeatedly as 'Vickers-Armstrong', a basic error. The other thing that niggles is the use of similar images throughout the book, evidently taken during the same photographic sorties, but this was not entirely avoidable, given the nature of the beast. Another drawback, unavoidable in any book dealing with aircraft preservation, is the fact that the publication was virtually guaranteed to be out of date even before it was published. Thus it ends with the 2014 display season and the BBMF team of that year, and the status of the aircraft at that time.

These things apart, this is a great insight into the history and workings of a famous and unique active collection. The countless images, most in colour, are well reproduced on glossy paper, and have informative captions. They include many going back to the BBMF's origins, personalities and intimate studies of airframes and engines under maintenance and restoration, often accompanied by typical checklists. The author spreads a wide net, covering the history of the BBMF and of the individual aircraft, training, operations, display routines and even providing biographies of the members of the Flight for 2014.

With Christmas approaching this book would make a very apt present, though the giver might find the recipient disappears for an hour or so just when the turkey is waiting to be carved.

Philip Jarrett

RAF in Camera

2 Volumes by Keith Wilson

ISBN :1950s, 978 1 47382 7950; 1960s, 978 1 47383 7768

Pen & Sword Books; £35 each.

These two coffee-table publications are well produced and contain a vast amount of information supporting a substantial number of photographs – many previously unseen – from the archive of the Air Historical Branch (RAF).

The first Volume depicts the Service's activities of the 1950s, initially marking the general transition from propeller-driven types to the jet era, with the progressive withdrawal of the Lancaster, Spitfire and Mosquito. The Meteor was already in service, but during this phase the Vampire, Canberra and, later, the Hunter and Javelin made their respective impacts. It was the start of a major change in equipment and associated tactics – and in the never-to-be repeated scale of the overall operation: the Coronation Review of the Royal Air Force by HM the Queen, held at Odiham on Wednesday, 15th July 1953, had more than 300 aircraft on the ground for inspection with an immaculate flypast by no fewer than 640 RAF aeroplanes. This major operation has good photographic coverage that records for all time the memory of an age in which the air force was of worthwhile calibre.

The Volume covering the 1960s, a period of base closures and general contraction, has positive measures as well with all three of Britain's home-brewed V-bombers – the Valiant, Vulcan and Victor – in squadron service and the Lightning makings its niche in aviation history as the first single-seat fighter designed to exceed the speed of sound in level flight.

In the field of heavy military transports, the Britannia, the Comet, the VC10, the Argosy and the Belfast all entered service and made their impacts. Also described are the many operations in which the aircraft were involved. As late as May 1963, although long retired from squadron service, the last six airworthy Mosquitos made a final official fly-past at Exeter where they had operated with No.3 Civilian Anti-aircraft Co-operation Unit to provide target facilities for the RAF and for army gunnery units. In November of the same year the longest military airlift ever undertaken by British Forces flew the 1st Battalion the Royal Ulster Rifles, 12,000 miles from the UK to Australia in seven RAF Britannias.

The two books cover the very wide range of activities carried out by the Service over twenty post-war years. Keith Wilson's text is very informative, although I am sure that he will not be offended if I stress how the amazing selection of pictures puts the spirit into each package. He must take the credit for the total result, which I find most impressive. These vast Volumes will not be allowed to wander far from my shelves!

David Ogilvy

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PICTURE CREDIT

In the October issue of AO&P, the picture of three hurricanes flying together (on page 41) should have been credited to Mike Rivett – Fotomotion. The camera ship was Bill Giles's Piper Aztec 'FD'.

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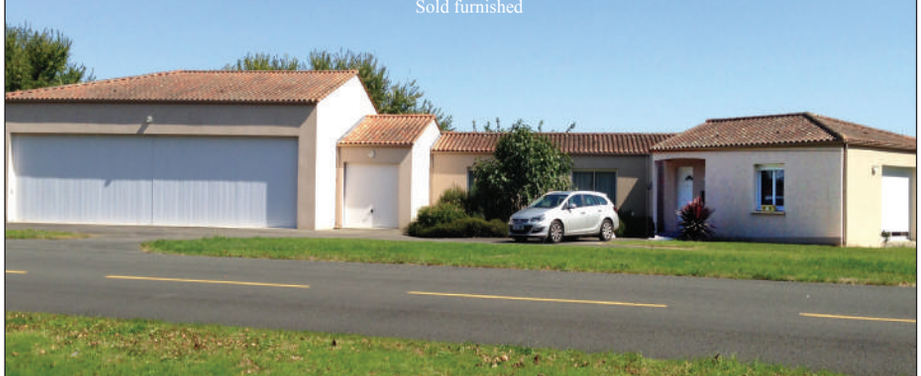

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AOPA Member profile: Dunkeswell (EGTU)

Initially established as an American Naval base during WW2, Dunkeswell Aerodrome is situated in the heart of the Blackdown Hills, approximately six miles north of Honiton, Devon. It hosts the largest GA community in SW England.

Devon & Somerset Flight Training owns and operates the airfield and has a fleet consisting of five Cessna 152s, Three Cessna 172s, a Piper PA-28, a Citabria tailwheel and a Scheibe motor glider.

There is a gliding site at nearby North Hill, so all aircraft have to be aware of any glider operations there, and stay well clear. Effectively the airfield and the gliding site share the same vast hilltop at an altitude of 839ft above sea level. This makes it the highest licensed airfield in the UK. There is also regular parachute jumping.

Joining Procedures: Aircraft should be established by 10nm or 10 minutes out (which ever is sooner) with Dunkeswell Radio on 123.475.

Circuit directions:
Runway 22 - Left Hand Circuit
Runway 04 - Right Hand Circuit
Runway 17 - Left Hand Circuit
Runway 35 - Right Hand Circuit

Joining is by downwind or base leg only. Dunkeswell is an active parachuting airfield (up to FL150); therefore overhead/deadside joins are only permitted when agreement is made via the ATSU. Circuits, for all active runways, are made at 800ft on Dunkeswell QFE. Refer to the ICAO Aerodrome Chart and Textual data for further information. Aircraft should avoid flying overhead Dunkeswell village. whenever possible.

Helicopters are to join from the north not above 500ft on Dunkeswell QFE to the centre grass triangle, then hover taxy to the relevant fuel/parking as specified by the ATSU. On departure, Helicopters are to depart to the North not above 500ft on Dunkeswell QFE. Please avoid flying overhead Dunkeswell village.

Landing Fees:

Microlights:	£5.00
Single Engine:	£10.00
Multi Engine:	£20.00

Fees Apply to both fixed and rotary wing aircraft All prices quoted include VAT at 20%; no extra charge is made for the use of credit cards.

Summary of facilities: Two hard surface runways, a variety of secure hangars and outside parking; full A/G radio service, 7 days a week, all year round. Members fuel rates for all home-based aircraft, with 4 pence per litre off the published standard rates. Fuel available: 100LL & JetA1.

Useful Contacts

Devon & Somerset Flight Training
Tel 01404 891643
Email: info@dsft.co.uk

Hangarage/parking
Air Westward Ltd
Tel: 01404 891271

Maintenance
Flymoore Engineering
Tel: 01404 891504
Email: info@flymoore.co.uk

Food
The Aviator café & bar:
01404 890009.
www.tacbar.com

Accommodation
The Lakeview Manor:
Tel: 01404 891287 or 891358
Email: reception@lakeviewmanor.co.uk

Taxis
Sparkys Taxis, Honiton, Tel: 01404 476 70

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