

The official magazine of the Aircraft Owners and Pilots Association

June 2016

AIRCRAFT OWNER & PILOT



50 Years

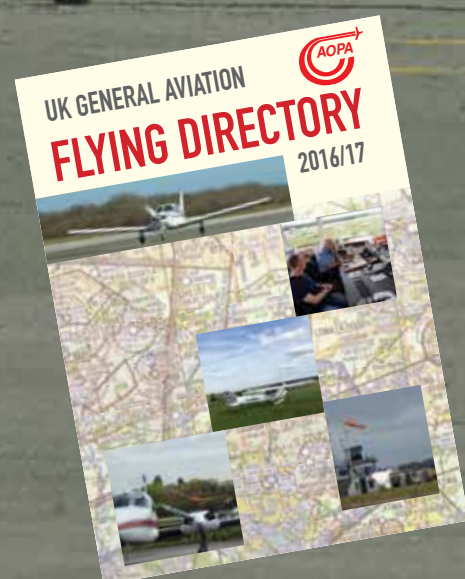
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June 2016

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Chairman's Message

50 Years Young!

By George Done

It is always a pleasure meeting AOPA members at aviation gatherings, such as the Duxford Safety Day held in April. Those I spoke to were most supportive of AOPA's efforts in endeavouring to ensure the current and future viability of general aviation in the UK.

AOPA has been a regular attendee of this event (and its previous guises) over the years. The AOPA table-top 'stand' was manned by volunteers Chris Royle, Mick Elborn and Nick Wilcock, with me in the background.

"The AOPA Members Working Group is open to, and will welcome, any member who wishes to hear of the latest developments and/or raise concerns."

As in previous years, a programme of presentations was provided, with speakers this year from the CAA General Aviation Unit, NATS, D & D and the UK Met Office – these talks provide a good way of catching up with the latest developments in GA. If you have not attended one of these events before, think about doing so as the effort is worth making, even if, as this time, unreliable weather discourages those aiming to fly in.

While viewing the aircraft in the adjacent Airspace hangar during a quiet moment, it was a very pleasant surprise to meet yet another AOPA member who happened to be acting as guide for the Imperial War Museum in the passenger cabin of the Handley Page Hermes. This aircraft was a four-engined airliner designed and manufactured by the firm where I did my apprenticeship – more years ago than I care to remember!

The work of AOPA, so highly regarded by our members, is conducted not only by our indefatigable CEO, Martin Robinson, and support staff back in the office, but also by volunteers who attend or chair AOPA committees and working groups. We are, after all, a members' association managed by members for members.

A summary of discussions from the recent meeting of the re-invigorated Corporate Members Committee appears within these pages. Similar accounts from the Instructor Committee, the Maintenance Working Group and the AOPA Members Working Group meetings also appear from time to time. These groups form a vital link to important areas of interest in general aviation and are crucial in helping AOPA keep abreast of current developments and in formulating future strategy.

The AOPA Members WG is open to, and will welcome, *any* member who wishes to hear of the latest developments and/or raise concerns. Most times the meeting takes place at White Waltham, but occasionally goes 'walkabout' to enable wider member participation, Coventry, Sherburn-in-Elmet and Stapleford having been past venues. The next one will be on Saturday 10th September with the venue yet to be decided.

The next major general aviation event in the UK will be AeroExpo UK 2016 at Sywell aerodrome, 1-3 July. This is a notable one for AOPA as we will be making a special effort to mark the 50th year of service to our members.

If you are visiting AeroExpo, please make sure you come along to the AOPA marquee and join in the celebrations! I look forward to meeting you there.

The August issue of AO&P will include a history of AOPA and its achievements.



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Editorial

By Ian Sheppard

Good Half Century

In the February issue, AOPA chairman George Done explained that this year the association will be 50 years old, and recounted its history.

It seems appropriate as we approach AeroExpo at Sywell (1-3 July), which has been chosen as the main event to celebrate the anniversary, that we repeat in brief what George wrote.

The British Light Aviation Centre Ltd was created at a meeting of the Royal Aero Club in January 1966. Some four years earlier AOPA in the US had spearheaded the creation of IAOPA to gain more influence at ICAO.

In 1967 IAOPA approached BLAC with a view to it becoming an IAOPA affiliate member, which led to BLAC Ltd trading as AOPA UK, which is still the status today.

In his February editorial, George recounted some of the achievements over the 50 years, and they have been many. The freedom you as a private pilot enjoy today is thanks in a large part to the work of AOPA and its committees, and it continues to push on a number of fronts for more affordable flying with less red tape and unreasonable rules, while standing up for high levels of safety.

So if you are attending Sywell I hope you enjoy your weekend – it's your chance to celebrate!

Contents

June 2016

7 Chief Executive's Diary

Martin Robinson has been working tirelessly for you!

9 AOPA: Working 4 You

The MWG thinks AOPA Wings Scheme needs a champion.

11 GASCo Evening

Ian Sheppard attended a GASCo safety evening at Redhill.

12 Airfield News

GAAC update and AOPA's list of threatened airfields.



EBACE show in Geneva, 24-26 May.

14 GA News Roundup

Looking forward to the 2016 Farnborough Airshow.

18 Sortie Management

Matt Lane discusses sortie management for instructors.

21 Amazing AGlaze!

You can do more than just clean your aircraft – you can protect it for years with many benefits.

21 Flying Directory 2016/17

Your essential guide to GA including a comprehensive listing of AOPA Corporate Members:

iii	Obtaining a PPL
iv	Sponsor: Jeppesen
vi	Flight Cost Sharing
viii	AOPA Wings Scheme
x	French for Pilots
xi	D&D Guide (121.5MHz)
xv	AOPA Flying Directory
xxii	Becoming an Instructor

24 IAOPA in Slovenia

European IAOPA members had a successful meeting in Ljubljana.

29 Letters

Should there be a Basic Instructor Rating for powered flying too?

32 The AOPA Simulator

Carol Vorderman visited AOPA's sim to prepare for her global flight.

33 Book Reviews

David Ogilvy read *The Monospar* and George Done read *Classic Light Aircraft* for this month's reviews.

35 Classified Advertisements

38 The Tiger Club

A move to Pent Farm has given the Tiger Club a new lease of life.



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Think airspace, avoid!

By Martin Robinson

CEO of AOPA UK



Picking up where I left off in the last issue, on **18th March** I met up with Jim Gilhooly of UKTI (UK Trade & Investment). I had previously met Jim at the BBGA conference on 10th March, which we reported on in the last issue of the magazine.

UKTI is examining the possibilities that may exist for UK GA in the Chinese market for developing essential business links. Jim is coordinating with colleagues based in Beijing.

This year's Farnborough Airshow is expecting a large Chinese contingent and, with the support of UKTI and Chinese colleagues, the objective is to run seminars on doing business with China during the show.

If you or your business have an interest in developing links with China, please email me at martin@aopa.co.uk.

After returning from leave I caught up with various projects, and on **1st April** I attended a meeting at the CAA which involved the senior staff of both NATS and the CAA, as well as representatives of FASVIG and AOPA. The purpose was to discuss the lack of progress being made in reducing the number of airspace infringements that occur each year. The total number is about 700, of which around 30% cause NATS major concerns.

These significant infringements are enough to tax the minds of NATS' senior managers and, with the investment that has been made over the past few years in raising the profile to the GA community, there has been little or no impact on reducing the numbers.

For this reason the CAA will begin to use its existing powers and start suspending pilots' licences (temporarily). While no pilot sets out to infringe airspace, infringements still happen. There are, of course, causal factors involved but GA must do more itself to reduce the numbers.

The best way to do this is to make sure that you plan your flight correctly. Use a transponder (if you have one) and make sure ALT mode is selected. You may, in some parts, think about using the radio so that you can make yourself known to the system and become part of a "known airspace environment." This will be important in some parts of the UK and less so in other parts.

AOPA does not generally support mandates as this pushes the price of equipment up, but NATS and the CAA should think carefully about developing known airspace environments before deciding how each type of airspace user can be part of the solution. I have suggested this to the CAA.

"The best way to avoid infringing controlled airspace is to make sure that you plan your flight correctly. Use a transponder (if you have one) and make sure ALT mode is selected..."

On **6th April** I attended the ICB/59 meeting in Brussels. One of the more interesting items on the agenda was a discussion about the formation of a Single European Sky Economic Regulator, which would be an independent body to ensure that Network airspace performs in accordance with the plans issued by the EU States.

There is no clear outcome yet, but it is clear that the current system is flawed. This is because States set their own airspace performance targets in the full knowledge that they will be fined if their airspace does not meet those targets.

The airlines have long pointed to this flaw, although they would stand to

benefit if States are fined because the money goes into the route charging system and reduces the route charges they pay during the following reference period.

However, the real reason for this emphasis on the 'Network' is that it will reduce delays, lower ATM costs and alleviate the environmental impact from air transport operations. The point for GA, then, is that when the shape and size of the network changes there is inevitably an impact on non-network airspace, which is mainly used by GA.

Also at this meeting, the issue of 8.33kHz radios was discussed. For Eurocontrol the mandating of 8.33 radio use frees up additional capacity. Therefore the governing EU Regulation says that by the 1st January 2018, in airspace where the carriage of a radio is required, it must be 8.33. AOPA is still hoping that some funds will be made available to help defray the costs, as these equipment upgrades are relatively expensive.

On **8th April** there was a FASVIG workshop covering issues associated with the use of Class D airspace, which is designed to create a 'known airspace environment.' GA has the right to access Class D - if you have never sought a clearance through Class D, or any other piece of regulated airspace, I recommend that you find a friendly instructor and try it out. It is not as difficult as you might imagine - you could even do the flight as part of your biannual flight requirements.

Also, if you do become lost or become confused about where you are, speak to air traffic (in normal language, forget 'aviation speak' if that is hampering you - the controller will find it easier to understand you (see also article on using 121.5 on page viii). Remember, help is available but whatever you do, **DO NOT** turn your transponder off in the vain hope you will not get caught.

On **12th April** I went to the CAA at Gatwick for the SRG Finance Advisory Committee, where the CAA continues to present its modernisation plans, which are centred on improving the ways it interfaces with you, the customer. The subject of GA charges was discussed, and it was recognised that more work needs to be done.

On **13th April** I attended a hearing in Brussels where suggested amendments to the Basic Regulation were considered. This included a proposal from European Airports that a new 600 kg limit should be established for microlights and gliders, where the manufacturer can opt in to EASA certification or opt out.

IAOPA's position on this is that 600kg would just create another weight category, along with another layer of rules. In my opinion, it would not simplify the existing system. Is this really simpler, lighter, better regulation?

Mid-April (14th/15th) saw the arrival of the much anticipated IAOPA Regional Meeting in Ljubljana, Slovenia, hosted by AOPA Slovenia. A report on the IAOPA RM is included in this issue of AO&P (pages 48-51) and a full report was published in the IAOPA Europe eNews (see iaopa.eu). It was also very pleasing to see that the RM was reported in DELO, Slovenia's national newspaper.

From **20th to 23rd April** I was in Friedrichshafen attending the Aero show. During the show we took part in a seminar with PPL/IR on the future of GNSS approaches – AOPA and Helios have received approval for funding under a GSA grant to produce six LPV approaches.

On **28th April** there was a meeting on 'drones' held at the Royal Aeronautical Society (RAeS) about identification and registration. AOPA is in favour of a registration scheme linked to some method of identifying the operator. However, the most interesting statement was delivered by a Government speaker who said that the aim is for drones to be accessing all parts of the UK airspace system by 2019!!!

That is only three years from now; most commentators do not believe this can happen, but I am not so sure. Take a look at the NATS home page and watch the video of a drone operating in controlled airspace. I wonder if they will pay route charges if they have a MTOM



AOPA will be celebrating its 50th anniversary at this year's AeroExpo, Sywell Aerodrome, 1-3 July.

greater than two metric tons, or if they arrive and depart from the same location they will be exempt? Will the ATSUs need more interaction leading to higher costs, and what happens if and when the 'link' fails – what impact will that have on the system?

Spring arrived, and on **5th May** I went to Stapleford Airfield for a meeting about foreign student pilot training and visas with a representation of UKTI.

Come to AeroExpo!

Then between **9th and 11th May** I attended the Jeppesen Connect event in Dubai. Jeppesen continues to be one of AOPA's best supporters and it was great to find out more about it thinking about its own future. The company will also be supporting AOPA UK at Sywell (**AeroExpo, 1st-3rd July**) so if you're attending please try to take a look at their stand.

12th May saw the GBASF (General and Business Aviation Strategic Forum) taking place at the CAA, co-chaired by LAA vice-president (and former chairman) Roger Hopkinson and Mark Swan, CAA director airspace policy. The introduction of a small business champion was discussed; this person will have no power as such, but small businesses will be able to appeal to them if they think 'regulations' are stifling the growth of their businesses. How much of this will help GA? I have my doubts.

On **15th May** the AOPA Members Working Group held a meeting at White Waltham Airfield. It was good to see the core group discussing the issues around licensing, aerodromes and airspace. Remember, if you want to come along it is open to AOPA members – you can find out more via the AOPA office.

There was an interesting discussion on **16th May** in London about LPV approaches and the work that will

commence shortly under a contract with the GSA. The ink is not dry yet so I am limited in what I can say for a few more weeks.

IAOPA came to the fore again on **18th May** with a conference call with colleagues around Europe concerning IAOPA Europe's continued involvement in SESAR – we are developing a position paper on CNS which we will eventually publish. I was part of another conference call **19th May** with colleagues about the future surveillance requirements coming out of Europe for aviation.

The following day (**20th May**) I had a meeting with Cirrus about how we could market their products (for example in this magazine), and then **23rd-25th May** I attended a conference in Bucharest, Romania which related to infrastructure (airspace and airports). The event presented a good opportunity for the views of both the GA community and the regulators/air navigation service providers to be aired. AOPA believes that the UK could do better but we only realise how fortunate we are when we compare ourselves to other regions. I also took part in the local AOPA's board meeting.

I was invited by the Dutch AOPA to speak at their seminar in Lelystad which took place on **28th May**. Lelystad is a wonderful airfield with many wonderful aircraft based there. Sadly, however, the future for GA at Lelystad may not be so good. Schiphol is effectively the owner and wants to develop the aerodrome as a reliever airport!

The other major issue in Holland is night VFR, with the main objection to night flying being noise. In fact, it makes little sense because night VFR just replaces flying that would otherwise be done during daylight; the days just happen to shorten! We continue through IAOPA to support our Dutch colleagues.

CAA's Tony Rapson attends AOPA CMC

The AOPA Corporate Members Committee met at AOPA's HQ in London on 6th April.



Chairing the meeting, Pauline Vahey (pictured far right) said that Tony Rapson, head of the CAA's GA unit (above), would be joining the meeting.

The shortage of flight instructors was then discussed along with a letter from Chris Rollings, who attended the meeting (see also Letters, page 30). Chris (pictured centre, right image) suggested a Basic Instructor Rating, which was established successfully in the gliding community some years ago, could help.

Aerodrome issues were then tabled, starting with Manston, where the proposed construction of two 1,000ft masts for financial trading could put the



resumption of fixed-wing operations at risk. John Walker said that the GAAC had raised an objection (see page 12).

Tony Rapson, who heads the CAA's GA Unit, was introduced to the committee. He said that the GA Unit was still relatively new (it started operation on 1st April 2014). It reports to the director of safety and regulation, Mark Swan. Rapson said it had 36 staff having added recently due to the extra work on air display safety. Airworthiness has 12 people to look after 18,000 aircraft and 450 approved organisations.

He said the GA performance-based regulation work was slightly behind



with Shoreham having become the top priority. On airshow safety he said the CAA's view was that the system had done very well for a long time but it relied very much on individual integrity and professionalism rather than a system approach.

He said there would be a post-season review and the usual DA (display authorisation) seminars would continue.

On safety Rapson said there were approximately 1,100,000 hours flown by GA registered aircraft in 2015. There are 13 fatal accidents a year based on a 10-year average (and 20 fatalities). So this has been fairly static, he said.

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AOPA: Working for You

Members Working Group

The AOPA Members Working Group met at White Waltham Aerodrome on Saturday 14th May.

Chairman Pauline Vahey reported on the latest meeting of the CMC (see report on page 9), noting the presence of CAA GA Unit head Tony Rapson. She noted that an increasing number of Corporate Members were attending the meetings and noting their value.

With respect to an update on LPAT trials, Martin Robinson (AOPA CEO) said that there had been some technical problems with the hardware that needed to be solved, but flight trials would start again soon, this time with LAA members taking part. He noted that the CAA had confirmed that non-certified equipment may be used in permit aircraft.

Wings Champion

It was agreed that the AOPA Wings scheme needed refreshing and needed a “champion.” AOPA is now looking for such a volunteer, and for someone to develop an app for the Wings Scheme.

AOPA member Ollie Saiman (from White Waltham) said that it would be good if the app allowed closed conversations between users, so the establishment of a Wings “community” was mooted. It was agreed that the Scheme would be promoted at AeroExpo (Sywell) 1-3 July, and further that Corporate Members should be encouraged to offer, for example, landing fee discounts to Wings holders (as encouraging the Wings scheme will assist their business). A directory of benefits to Wings holders would be advantageous, it was noted.

Martin Robinson said that the migration of the membership database to a new platform had been completed, and Mick Elborn was thanked for the considerable amount of work involved in completing this large task.

John Walker circulated an airfields



White Waltham is home to many interesting aircraft and offers a wide range of training courses.

update (which is published on page 13). He reiterated that the release of MoD sites for civilian use represents a golden opportunity for GA, particularly in the northern section of the south east. Disbandment of RAF AEF and ATC gliding squadrons was viewed as a hugely retrograde step. Martin Robinson said that he is trying to arrange questions in the Lords, via AOPA member Lord Stevens. An answer to what constitutes the Government’s idea of a sustainable airfield network is still awaited.

Nick Wilcock gave an update on EASA, reporting that a route for LAPL holders to upgrade to PPL had not yet been implemented. Flying passengers by LAPL holders has been proposed but under the supervision of an instructor.

Nick said the CAA had agreed that hours logged for PPL training under the old JAR regulations, prior to 2012, can be used towards an EASA PPL licence. However, not more than two months can elapse between application and skill test.

He also commented that, with the change from land-based to space-based navigation systems, a rethink is required on instrument qualifications suitable for PPL holders. He queried whether an IR is needed to fly airways or to fly safely in IMC? He plans to discuss this further

with colleagues and make proposals for future discussion.

AOPA chairman George Done thanked Nick on behalf of all AOPA members for all his hard work, and this was endorsed by the group.

Martin Robinson gave a brief ‘CEO’s update’ focusing in particular on the clamp-down on pilots that infringe controlled airspace (see also CEO’s Diary on pages 7-8). He said that the CAA had proposed that in the most serious cases, temporary licence suspension would be invoked pending investigation of the circumstances. Where a fine is imposed, the court will set the amount of the fine dependent on the defendant’s circumstances. Martin emphasised that GA must be part of the solution, and not the cause of it.

Martin moved on to discuss AeroExpo. He said that a BBQ would be held on the Saturday evening (2nd July) to celebrate AOPA’s 50th anniversary. Volunteers are needed for any time over the 3 days, he added.

The next MWG meeting will be held on Saturday 10th September, with the venue being either Birmingham International Airport or White Waltham.

Your Most Valuable Evening of the Year!

On 5th May I attended a GASCo Safety Evening at Redhill Aerodrome. It has been a few years since the last one I attended at Redhill and I have to admit they just keep getting better at them!

The General Aviation Safety Council is based at Rochester and tours the country delivering such lectures.

The presenter on this occasion was Geoff Connolly, and we were honoured to have GASCo CEO Mike Donohue in attendance too, to add additional wisdom and experience to the mix. And to top it off, John Thorpe was also there. John delivered hundreds of safety evenings over many years.

Also present was Mike Charlwood from the CAA, so they couldn't have made the evening more worthwhile!

I took quite a few notes but my main impression was that the inclusion of videos and hand-outs (e.g. a safety-related book), and the interactive nature, made it far more than just a lecture on safety. Geoff warned against "impulsive, ill thought-out decisions" (such as a



Geoff presents to a packed Pilot's Hub café.

helicopter pilot changing his landing site at the last minute, only to hit a cable) as well as the danger of distractions, "which play a part in many fatal accidents."

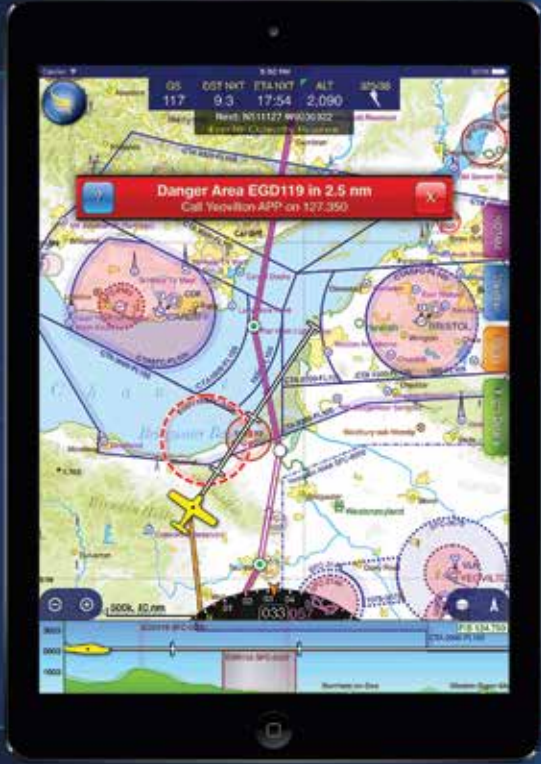
Mike Donohue warned about dangerous infringements and that one serious incident could "change GA forever." At the very least a pilot might expect to take the CAA infringement retraining test. Geoff added that the statistics show that instructors have had quite a few infringements, as they concentrate on the student. He advised looking at infringements.caa.co.uk and the flyontrack.co.uk websites, and also mentioned that users of apps

such as SkyDemon should ensure they understood the display settings for airspace etc. Mike said 121.5 D&D was always there to help those that were lost, and NATS Swanwick welcomed visitors. He also warned that gliders don't only stay in the circuit, and cables "could go up to 3,000ft." Another message that came over loud and clear was the importance of practicing. For example, many loss-of-control incidents occur during go-arounds, as people don't practice enough. Geoff noted that John Farley, the famous test pilot, had created his own currency check list, which GASCo refers to as the "Farley List". This includes fanstops, PFLs etc.

At the end of the evening I joined the queue to get my logbook stamped - which is great for pilots gathering evidence for the AOPA Wings Scheme.

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Ian Sheppard





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A battle has been won at Wellesbourne, but not the war. Delight at the Inspector's ratification of the Council's Strategy Plan with its commitment to maintaining the airfield use should be greeted with a degree of caution until we know the owners' next move.

The CAA is undergoing an internal reorganisation prior to Andrew Haines' planned departure within the next year. Early indications are that the organisation is to be streamlined and put on a more business-orientated footing with 'commercial' people taking some of the administration load off those actually regulating aviation. Some hiatus is inevitable; let's hope the transition is both brief and successful and enables a reduction in the cost of GA flying.

On behalf of GA the GAAC responded to the DCLG's online Consultation Document for the Housing and Planning Bill currently in Parliament and added a Position Statement setting out those areas we thought deserving of more consideration, particularly changing the status of airfields to 'Amenity' from Brownfield. An acknowledgement was made by return but the meeting we were offered with the minister has yet to materialise. This probably reflects the

current pre-occupation with the EU Referendum, so hopefully we will be invited once the result is known.

The new airshow regulations debuted at the Shuttleworth Collection's inaugural display of the year. Headlining the show were the Red Arrows. Prompt as ever, their 2016 routine started in sparkling form completely wowing the audience until a helicopter trundled into the RA(T) and their display had to be abandoned, much to the irritation of those watching. The helicopter pilot's licence has been suspended.

At a GASCo meeting just prior they re-emphasised the use of "all the P's" prior to take off and 'Preparation' should start with 'Read the NOTAMs!'

The latest software and GPS based systems make the task a whole lot easier

now, and pilots also need to bear in mind that the regulators have access to the same tracking information when adjudicating infringements.

Our Airfield Safeguarding adviser and I met the company planning to build a 1,000ft mast at Port Richborough, which lies within Manston's Safeguarded zone. Clearly the GAAC could not support the application, but we were told that a 'de-construct' clause had been offered in the event that Manston became operational and this prompted some further discussion. The application is now outstanding and may be referred to a higher authority.

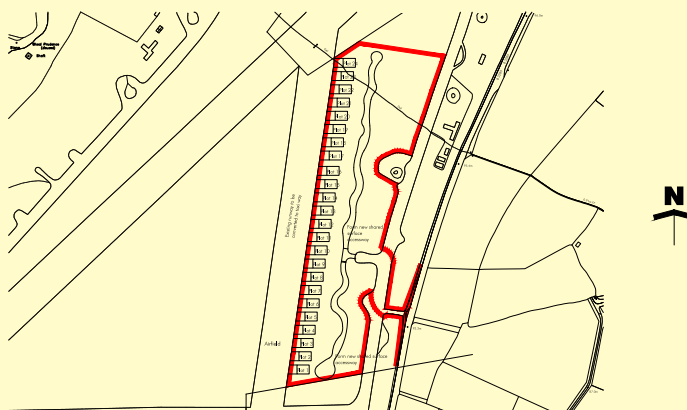
In the meantime a competitor has submitted a further application for another mast a mile further south, which may be outside the Safeguarded zone.

Picture taken from just north of Richborough Port looking north to Manston.



Hangar Homes for Perranporth Airfield?

Further to the April issue of the AOPA magazine, Hangar Homes Ltd says that it has now made a pre-application submission for 24 units on Perranporth Airfield to Cornwall Council. Peter Day, founder and director of the company, told *AO&P*, "When I flew around the UK last summer visiting various 'target' airfields for my Hangar Homes, Perranporth was by far the best because of its location. The Hangar Homes will be sited to the east of the unlicensed 01/19 runway, now used as a taxiway, and the balcony overlooking the airfield will provide stunning sunsets over the sea, while the morning sun will flood the other balcony overlooking Perranporth town and the beach, which is only walking distance away. "If Cornwall Council give a positive response, then a full planning application will be submitted later this year with the hope that the Hangar Homes will go up in 2017/18, depending on how long the planning application takes. Given that Old Sarum Airfield has now withdrawn its residential use in its larger hangars, Perranporth could become the first GA airfield in the UK to have residential use." For more information please contact Peter Day via www.hangarhomes.co.uk.



Status of Aerodromes Under Threat

The following 16+ airfields are on the AOPA watch-list:

Andrewsfield: Braintree, Colchester and Tendring Councils are co-operating in developing a Local Plan for north-east Essex and have identified Andrewsfield airfield as one of four sites for potential housing in a new garden city with 10,000 homes. Extensive public consultation on draft Plan expected to start in June 2016.

Bourn: Site earmarked for 3,200 homes in current draft Local Plan by South Cambridgeshire District Council. The draft Plan will be the subject of further examination by a Planning Inspector in June 2016. Current site leases expire early this year. Planning consent recently given for outside storage of shipping containers, plant etc. on most useable runway.

Deenethorpe: The latest Joint Core Strategy for north Northamptonshire has identified Deenethorpe Airfield as a potential exceptional opportunity for development as an exemplar garden village with around 1,250 homes. The Brudenhall Estate, the site owner, who have supported the development, now need to produce a master plan for the site in accordance with the Core Strategy, for approval.

Dunsfold: Site owner submitted plans to Waverley Borough Council for mixed development with 1,800 homes on site which area is in planning Core Strategy for employment purposes. Council expect to submit final draft Local Plan for examination in November 2016.

Halfpenny Green (Wolverhampton Business Airport): Bobbington Estates have sold the aerodrome to MCR Property Group an investment and development company focused on commercial and residential real estate resulting in much speculation about the future of the site.

Kemble: Commercial Estates Group (CEG) proposal to build a 2,000 home sustainable village on this 'brownfield' site as an alternative to the draft Local Plan proposal for a greenfield site near Cirencester. Full Planning Inquiry into the draft Cotswold District Council Local Plan and alternatives to it scheduled for late 2016.

Long Marston: Planning permission for 400 homes on site granted in November 2015. Airfield is in Stratford-on-Avon planning Core Strategy for housing with up to 2,100 homes by 2031. Developer is Cala Homes in conjunction with site owner. Refer to entry for Wellesbourne below.

Manston: Thanet District Council having rejected proposal for a CPO of site with River Oak who wish to retain the aerodrome, now have three other potential CPO indemnity partners which the Council's Cabinet are considering. River Oak has given notice of intent to apply for a Development Consent Order for the aerodrome as a Nationally Significant Infrastructure Project. The current site owners have proposed a mixed use development with land earmarked as a Spitfire Park allowing occasional landings by Spitfire aircraft in conjunction with existing museums.

MoD Sites: RAF Hullavington airfield, the former RAF Wethersfield and RAF Wyton airfield (see below) now being disposed of by MoD along with sites currently occupied by USAF at Alconbury, Molesworth and Mildenhall. Further airfield sites expected to be declared as surplus resulting from the current review of the MoD estate which is due to be completed in September 2016.

Nottingham City (Tollerton): With the support of the land owner, site earmarked for up to 4,000 homes in Local Plan Core Strategy adopted by Rushcliffe Borough Council after approval from Planning Inspector.

Old Sarum: Site owner's proposal for housing development and 10 additional hangars amongst other work, objected to by various parties as detrimental to the sites heritage and potentially limiting use of the airfield. Planning application due to be determined by Wiltshire Council on 9 October 2015 but decision has been delayed several times since then.

Panshanger: Site earmarked for housing in draft Local Plan by Welwyn Hatfield Borough Council with final draft Plan open for public consultation in July 2016 and Planning Inquiry to be held in early 2017. Recent proposed site development plans include 3 different scenarios for a new runway to the north, south or across the previous runway 11/29.

Plymouth: Central Government have commissioned a study into viability of reopening the airfield with a report now due in early 2016. FlyPlymouth, a local social enterprise aerodrome support group, plans to reopen the airfield by 2017 and start regional airliner services by 2018. Sutton Harbour Holdings, the site lease holder, have proposed a mixed use development of the site although the current draft Local Plan retains the site for aviation. The Plymouth City Council Local Plan will be the subject of a Planning Inquiry in July 2016.

Rochester: Judicial Review into Medway Council approval of hard runway, 3 new hangars and new control tower postponed from November 2015 as Consent Order issued for Council to review decision at a special meeting to be held shortly. Enterprise Zone status granted for commercial part of the proposed site development.

Wellesbourne Mountford: Gladman Developments in conjunction with the owner have proposed a housing development with 1,600 homes on the site although the Stratford-on-Avon draft Local Plan has earmarked Long Marston airfield as a preferred housing development site. After Local Plan Core Strategy hearings held by a Planning Inspector, the latest version of the Plan issued for consultation states that "The aviation related functions at Wellesbourne Airfield will have been retained and enhanced". Tenants notified by owner that flying activities will cease on 24 December 2016. The District Council has agreed to fund a feasibility appraisal of the site to try and secure the future viability of the airfield for local businesses.

Wycombe Air Park: Site lease holder (Helicopter Aircraft Holdings Ltd) after prolonged discussions with the land owner (Wycombe District Council) has agreed a new lease. Draft Local Plan provides for an industrial / warehousing complex on south-eastern part of the site potentially resulting in loss of a runway and cessation of gliding activities. Council expect to submit final plan after public consultation to Planning Inspector by January 2017.

RAF Wyton: Airfield site being disposed of - Defence Infrastructure Organisation and local property developer Crest Nicholson proposal for 3,750 homes on site. Site earmarked in draft Huntingdonshire District Council Local Plan for mixed use development including housing.

GA News Roundup

CAA Acts on Infringements

Pilots who infringe controlled airspace could have their licences provisionally suspended while the incident is assessed, the UK Civil Aviation Authority (CAA) announced on 20th May. The CAA stated, "The decision is the latest attempt to try and reduce the number of infringements occurring in UK airspace - which remain worryingly high despite previous attempts by the CAA, air traffic service providers and GA representative bodies to tackle this serious safety issue."

In 2015 there were over 1000 infringements reported to the CAA, it said.

New Aircraft Recovery Service

Aero Recover has started a brand new breakdown recovery service for general aviation. Director Adam Berrisford said, "I came up with the idea while planning my first cross Channel trip to Le Touquet with my father. It occurred to me that if there was an issue with the aircraft in France I would be in quite a predicament so I tried looking around for some kind of cover. It didn't exist and I thought surely I can't be the only one that would want to protect myself in this manner?"

2016 Farnborough Airshow



Excitement is mounting ahead of this year's Farnborough Airshow, will take place 11-17 July. The Lockheed Martin F-35 Joint Strike Fighter is expected to be the star of the show as well as Boeing, which will be celebrating its centenary. China has a pavilion for the first time, while the other first-time country pavilions will be Austria, Brazil, the Republic of Ireland and South Korea—bringing the total of international pavilions to 22. As of mid-May the organisers had 94 aircraft listed for the static display including two Airbus A380s and two A350s (one each from Airbus itself and Qatar Airways), along with a wide range of business and GA aircraft.

"We have strong support here, for example the HondaJet will be at the show—with [UK dealer] Marshall Aerospace—and Diamond are bringing three aircraft. Dassault are bringing a Falcon 7X and 2000LX and we have four slots for Gulfstream," organisers said. A Pilatus PC-12, Cessna Caravan and Viking Air Twin Otter Series 400 will also be on the static.

Current plans are that on Monday morning (11th July) the F-35 will fly past with the Red Arrows around 10.30am, and the F-35 is due to fly also at around 2.30pm. It won't fly on the Wednesday and Thursday as it will fly on Friday to Sunday for the public days.

On the public weekend the highlight this year, apart from the flying display, will be a Drone Show and a Drone Safety Weekend "to help educate recreational drone pilots and the general public about the laws relating to unmanned aircraft in the UK, as well as give sensible advice regarding safe flying and possible dangers."

HAA Annual Symposium

The Historic Aircraft Association (HAA) Annual Symposium will be held at the RAF Museum, Hendon on **Saturday 29th October**. The theme this year is "*The Jet Age*", presented by a panel of distinguished speakers. As in previous years, the ticket price includes a first class hot lunch, parking and access to the museum.



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NetJets Invests in Heliport



NetJets, which offers fractional shares in business jets, has entered into a partnership with The London Heliport that sees the Battersea heliport rebranded as NetJets London Heliport. The heliport is owned by the Reuben Brothers, who also own London Oxford Airport.

Textron's New Turboprop

Textron Aviation unveiled the cabin mockup for its single-engine turboprop (SETP) on 25th April in Wichita. The low-wing, T-tail configuration includes a large cargo door on the left aft fuselage and will be powered by GE Aviation's new advanced turboprop engine, which is as-yet unnamed. The avionics will consist of Garmin G3000 with touchscreen controllers.

The introductory price is \$4.5 million, promising a range of 1,600 nm and a maximum speed of 285 knots. The maximum altitude will be 31,000 feet, with a cabin altitude of 6,000 feet and full-fuel payload of 1,100 pounds. First flight is scheduled in 2018. The standard configuration will be a six-passenger executive layout.

The annual Asian Business Aviation Conference & Exhibition (ABACE) took place at Hongqiao Airport in Shanghai in April. The GA show is China's answer to EBACE and the U.S. NBAA event, and is run in partnership with NBAA by AsBAA and the Shanghai Airports Authority. Many GA manufacturers were present including Cirrus (below), Viking, TBM and Pilatus, along with various business jet manufacturers. Last month China announced another wave of liberalisation and freeing up of airspace to help GA to develop. The country sees it as a key sector for economic development and is not slowing down despite the austerity/anti-corruption drive over the past couple of years and the commodity crisis that has hit China hard.



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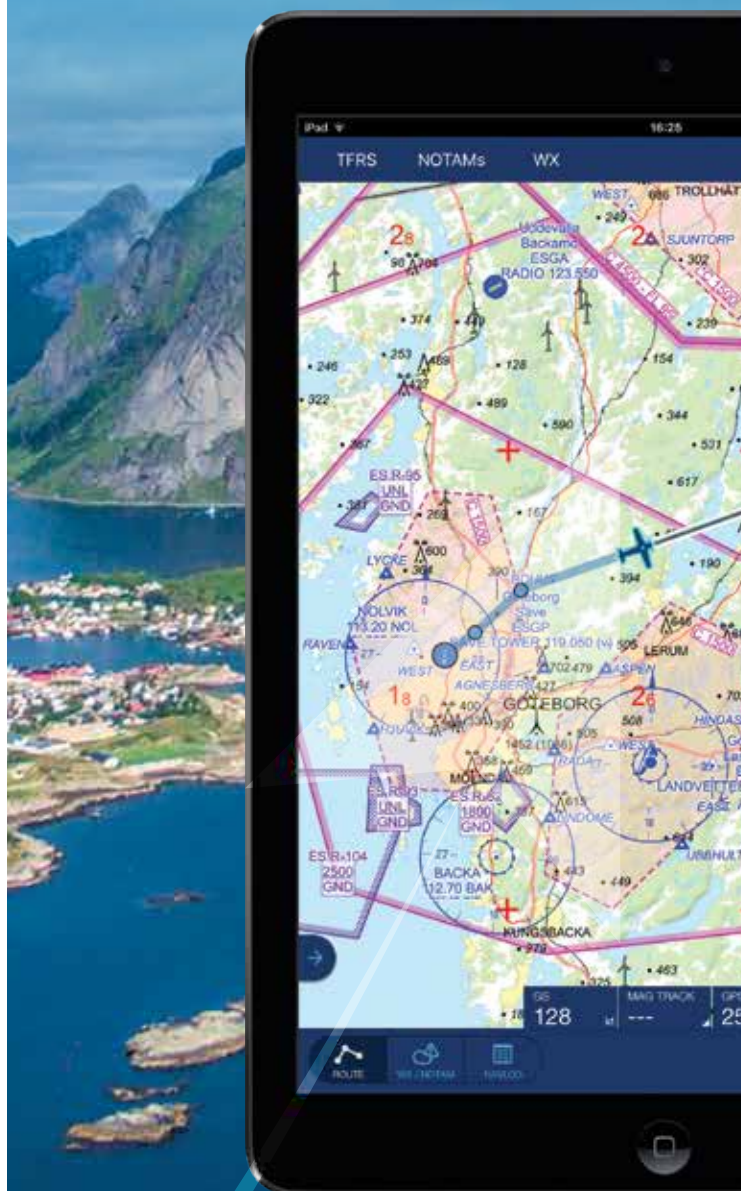
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EBACE, Geneva, 24-26 May 2016

The highlight of last month's EBACE event was an appearance by one of the Pilatus PC-24 flight test aircraft (see far right over Geneva), which took a 24-hour break from its busy schedule to attend. Meanwhile a VVIP Boeing 787 that is being transferred to Deer Jet was a win for the Guernsey 2-Reg, with a deal being done at the show to register the aircraft there.

Others that were present included TBM with its new 930, and Honda with two HondaJets.

Diamond was exhibiting a DA62 which *Aircraft Owner & Pilot* hopes to fly for an article in the August issue.

Embraer was celebrating with Flexjet at the show with a Legacy 450 flying in from London City Airport (LCY) after EASA had approved it for the steep approaches there.

The mood of the show was cautiously optimistic although the economic signals are mixed at present, with a significant downturn in aircraft sales and more used inventory for sale. Flying activity is down considerably in the east, especially Russia, according to consultancy WingX.



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Air Plains 172 Upgrade

Air Plains is promoting its EASA approval for Cessna 172 engine upgrades. For 172R models (1986-2004) without Garmin G1000 avionics, the 180hp performance kit (of which it has sold 150 already) includes new McCauley propeller; new heated induction box, duct and control cable; tachometer (exchange); air speed indicator (exchange); installation hardware and clamp kit; drawings and Flight Manual Supplement.

It is covered by two STCs, one for the engine and a second for the increased gross weight to 2,550lbs (an additional 100lbs). Shipping is not included, and a \$350 export fee applies if being shipped outside the US.

Air Plains explained to AO&P: "180 Horsepower allows you to take advantage of the horsepower originally designed into the engine. By allowing the engine to turn 2700 RPM, the full value of the engine is utilized. Installation of an alternate air system allows positive control of the alternate air system in the event that induction ice or the filter is blocked by ice, or other foreign material."

The 172R was built from the factory with 180 horsepower engine, Lycoming IO-360-L2A, but the propeller limits the performance (de-rates the RPM) and allows to turn only 2400 rpm. With the new propeller and performance kit the engine can turn full 2700 rpm getting full value and use of the performance originally designed in to the aircraft and engine. Also, with the added performance the user gets additional 100 lbs useful load.

Installation takes approximately 8 hours from start to finish and Air Plains provides technical support via phone or email if any questions during or after the installation.

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Sortie management for instructors...

By Matt Lane, AOPA Instructor Committee

Instructors are some of the most well trained, most current and experienced pilots operating GA types in the UK. However, recent airspace infringement statistics reveal that, year on year, a significant percentage of infringements happen with an instructor as the pilot in command. The root causes and contributory factors leading to an infringement are often many and varied, but clearly this trend is highly undesirable and as an instructor community we need to work on reducing the rate.

Unlike many GA PPLs who enjoy touring and landaways with their licence, when instructors get airborne it is often to a 'well known' local area for training, then a recovery back to home base. So it should be easy then? Well, clearly there are a number of 'Threats' facing us and 'Errors' that can be made that keep catching us out.

The aim of this article is to discuss some aspects of 'sortie management' for instructors that may be useful 'Mitigations' and may help you avoid becoming one of the statistics. No-one has the monopoly on good ideas, and many of you will have your own thoughts and views so please take this in the spirit intended – if nothing else, I hope it stimulates some debate and reflection. Perhaps a good activity for an instructor crew room discussion on a rubbish weather day (and we haven't been short of those lately!).

'Mental Model'

UK airspace is incredibly complex, especially in the South East, and has many shapes, layers and protrusions ready to catch out the unaware. It is vitally

Weather

What is the wind direction and strength? Is there a large gradient today? How will it affect us during the flight? How much drift could we suffer?
Is the visibility poor? How will it affect our ability to see features and the airfield?
What is the cloud base like? Are we likely to be kept low? If we go above cloud layers, how much space about the cloud tops do we have?
Are there rain showers around that could cause us to divert around them?

Altimeter Setting

What pressure setting are we going to operate on? Is it appropriate for the operating area? If a low pressure day, could it cause a dangerous differential?

Controlled Airspace

Review that mental model in relation to where we are going to operate today.
Are there any restrictions or temporary airspace that could affect us?
If weather means I have to move from my intended area, where can I safely go to continue the sortie?

Other Traffic

Ideally we don't want to go where lots of potential airborne threats will distract us or cause us to move to an unintended area.
Is it good weather - are there large amounts of other local or airborne traffic that could distract me?
If it is a good gliding day, beware of operating near to cloudbase or near to concentrations of gliders.
Where are my other school aircraft likely to be going?

Sun

Where is the sun? How strong is it? A student will struggle to see and maintain attitudes if being blinded facing into sun, and the sun / haze can seriously degrade visibility of ground features.

Anchor Points

Make sure you select some visual 'anchor points' or 'handrails' (line features) ground features that you can keep in sight when manoeuvring around to keep your positioning. These will also help you keep an eye on drift by watching the sight line angle perspective maintained.

Altitude

Select an appropriate Altitude for training that gives you an adequate buffer from airspace and caters for inaccuracies in altitude maintenance when training. Equally operating near to cloudbase can degrade your visibility and make accurate altitude maintenance more difficult than necessary.

Upwind

If possible, an upwind operating area is desirable. It will facilitate an efficient return to base post training and gives you the opportunity to see and avoid approaching weather. If teaching turning or long straight legs, beware of drift.

Profile

Think about how your profile, especially altitude changes, will fit with the intended exercise – stalling, climbing and descending exercises for example will need some thought and planning to select an appropriate start altitude and operating area.
Try and ensure the profile gives you an efficient end position for recovery back to base, and gives you options to space appropriately for other traffic and airspace on the rejoin.

Dos and Don'ts for GPS usage during training:

DO make sure the device is appropriately mounted and secure.
DON'T put it near the compass (an iPad underneath will cause a 30 degree swing!!)
DO make sure your app and airspace is up to date.
DO make sure you fully know how to use the app/device.
DO understand how it works – e.g. how GPS altitude relates to barometric altitude.
DO use the GPS position to back up and confirm your other sources of location.
DON'T degrade your LOOKOUT by getting focussed on the device.
DON'T get caught out by inappropriate airspace depictions, e.g. IFR tailored displays on Garmin 430/540 units.
DON'T use GPS to fly right up to the edges of airspace – leave an appropriate buffer.

important that you have a good 'mental model' of the airspace where you are going to operate and how that relates to the landscape over which you fly. As we all increasingly use flat screen tablet computers and phones, our ability to think in 3D is apparently being degraded over time. To keep yourself sharp, make sure you can verbally describe the key features of your operating area that can help you maintain a safe operating area clear of airspace. For example, at Wellesbourne I know Birmingham airspace is above the airfield at 3500' so I never climb above 3000' until I am certain I am well clear to the South or West. I also know that Birmingham airspace comes down to 1500' at Junction 15 of the M40 just to the North, so I always make sure I have turned away towards Stratford area well before that visual reference. If you can keep 'not above' altitudes and references like this in your head, it can help keep you clear.

What's the situation today?

Complacency can creep in to the best of us, and it is also too easy to trot out the well trodden and timeworn 'TEM' or



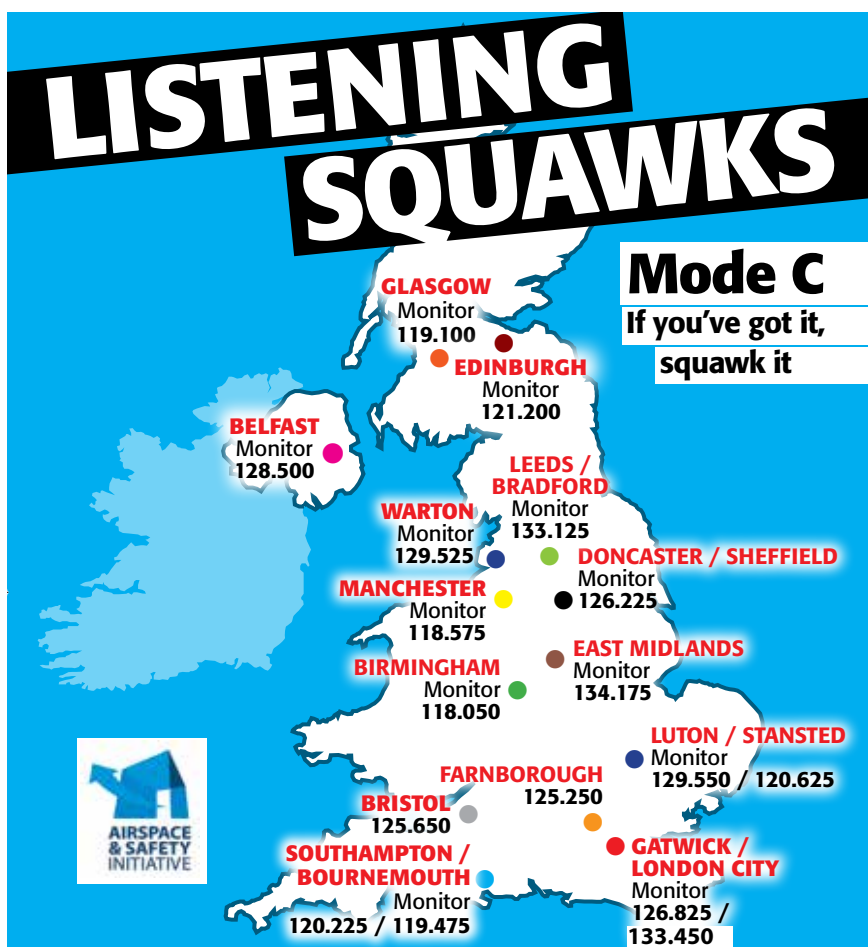
'Airmanship' points each sortie. However, what we should be doing, and coaching our students to do, is assess the specific conditions and environment of the day and making judgements based on that. I suggest the following considerations:

This is also where you need to take an honest view of the training value of the sortie on the day. It is always tempting to try and get airborne, but if it is a poor weather day, strong wind and you are

going to try and get a turning exercise done in a small gap around a load of airspace, you might just be stacking too many cards against yourself...

Positioning

How you position the aircraft during a sortie can significantly improve the training experience for the student and help you reduce the risk of an infringement. Some more considerations:



Squawk Codes

7045 Belfast, Aldergrove	0010 Birmingham	5077 Bristol	6170 Doncaster Sheffield	4572 East Midlands	0440 Edinburgh	4572 Farnborough
0012 Gatwick, London City	2620 Glasgow	2677 Leeds Bradford	0013 Luton, Stansted	7366 Manchester	0011 Southampton/Bournemouth	3660 Warton

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Looking (and listening!) out while passing Lee-on-Solent Airfield.

GPS Usage

There are a wealth of GPS moving map type display devices now available, either as apps on tablets or dedicated GPS devices. The situational awareness that a GPS display can give you is immense and can significantly reduce your workload when instructing. Moreover, pretty much every PPL student will go straight out and buy an app or a device as soon as they can, so I believe it is incumbent on us to introduce the safe and correct usage of these aids during the training process. It is complete urban myth that GPS cannot be used during PPL training; yes the student must demonstrate a level of dead reckoning navigation skill on their test, but we have moved on from Tiger Moth navigation days!

Radio / Transponder Usage

Selecting an appropriate Air Traffic Service is sometimes a difficult call. A purist answer would be to always try and obtain a Traffic Service, however we all know how that is not always available and what busy frequencies can be like when trying to instruct... A Basic Service is often most appropriate, but remember what it actually means – collision, terrain and airspace avoidance remain your responsibility even if a friendly, alert controller might warn you if he/she spots an impending issue. Many areas of the UK now have listening squawks so please try and use one if possible when operating near to airspace. Transponders – everybody always uses

Mode C or Mode S if fitted don't they?? No excuses, ever. Enough said...

Workload

We all know and love the 'Aviate, Navigate, Communicate' adage don't we? Well, why when instructing is it one of the first things that often goes out the window?! The point is, don't over prioritise instructional pattern and neglect checks, positioning and LOOKOUT. Sometimes, it is entirely appropriate and right to break off the instruction, take control, tell the student to relax for a few minutes, and reposition the aircraft or take a breather to update your situational awareness. Equally, don't let a bad student position or error develop too far so that you deny yourself options to maintain your position or altitude. Also be careful of apparently benign sorties like trial lessons – a flurry of questions, talk or photo taking can be just as distracting.

I hope these points have been of some interest and may stimulate some thoughts of your own – no-one is immune from errors, but we can all try and take some mitigating actions to reduce the risk and pass on this ethos to our students for their flying careers.

I started, but can I now finish...?

By Nick Wilcock

A number of student pilots might well have started their PPL training in the days of JAR-FCL, but didn't manage to finish their training before 8 April 2016. Unfortunately, there's a part of the Aircrew Regulation (Article 9 of Regulation (EU) 1178/2011 to be precise) which states:

Credit for training commenced prior to the application of this Regulation:

1. In respect of issuing Part-FCL licences in accordance with Annex I, training commenced prior to the application of this Regulation in accordance with the Joint Aviation Authorities requirements and procedures, under the regulatory oversight of a Member State recommended for mutual recognition within the Joint Aviation Authorities' system in relation to

the relevant JAR, shall be given full credit provided that the training and testing were completed by 8 April 2016 at the latest.

In English that means that if they hadn't passed their PPL Skill Tests before 8 April 2016, any flight training they'd received before 8 April 2012 would no longer be accepted towards a Part-FCL PPL. There's no real logic in this, but it might take a long time to change the European legislation, so we have to live with that for now.

However, after we discussed the matter with the CAA, they helpfully evolved a solution. Basically, student pilots caught in this situation will need to apply for an 'Article 14(4) exemption' and to have had it issued before taking the Skill Test.

Some important numbers:

Application must be made using CAA Form SRG2137. The CAA estimates that it will take around 10 days to process and issue the exemption and the exemption must have been issued before the Skill Test is taken.

The administration fee is £53 for an exemption valid for a two month period. The Skill Test must be passed within two months of receiving the exemption.

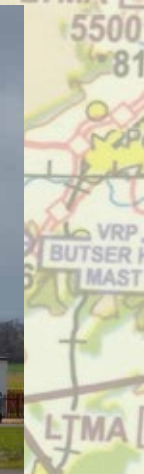
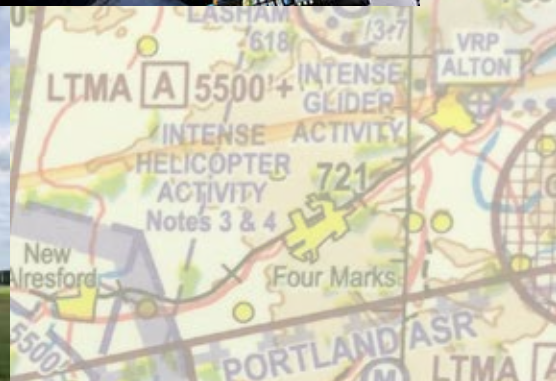
This was the most pragmatic solution the CAA could identify, given that the Summer flying season is now almost with us and people caught by the 8 Apr 2016 deadline needed a quick answer, so that they could carry on with training towards a Part-FCL PPL.

UK GENERAL AVIATION



FLYING DIRECTORY

2016/17



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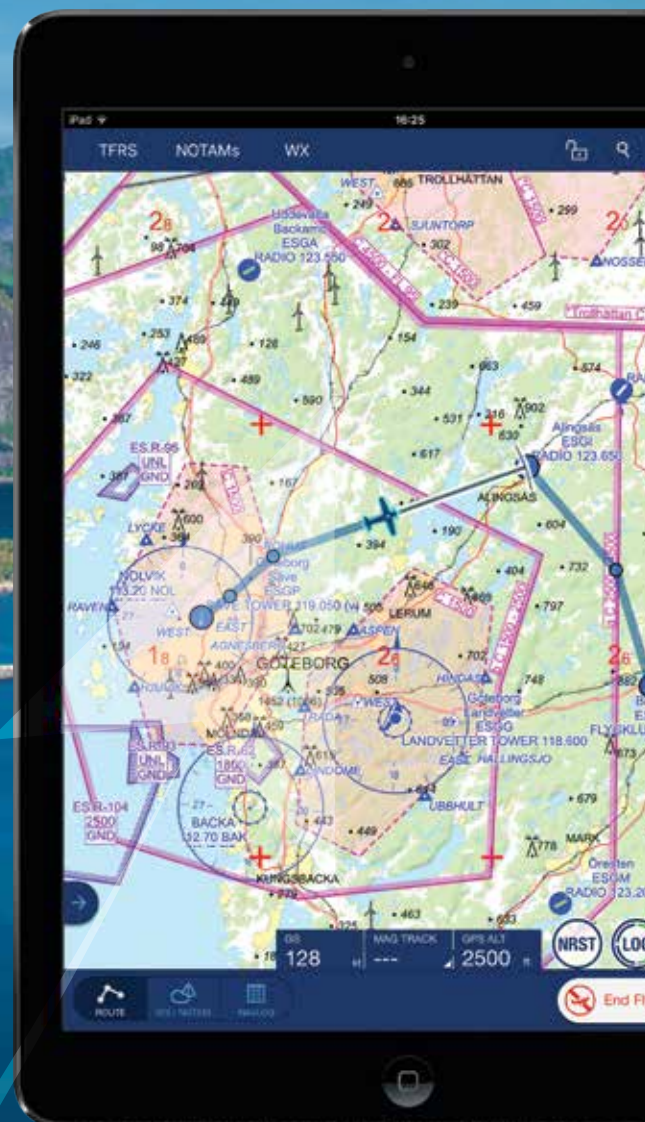
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We wish you all the best as you begin the next 50 years of serving general aviation.



Chairman's Introduction

By George Done

Chairman, AOPA UK



Whether you're an aspiring pilot, young or not so young, or a pilot who wants to get back into flying, or someone who flies and is keen to improve, AOPA's Corporate Members have the skills, expertise and range of training aircraft to help you to develop.

This Flying Directory can be your guide to broader horizons in general aviation. Even for those that go on to become airline pilots, military pilots or corporate aviation pilots, it is hoped that you won't leave the world of light aircraft behind and will continue with private

flying and perhaps put something back by instructing (we explain how you can do this in an article on page xxii).

The UK and Europe have a network of under-utilised airfields that are a pleasure to visit, whether for business or pleasure. They will not survive if they are not used yet they provide entry points to some of the most beautiful areas of the UK and Europe.

Our aim with this guide is to allow you to choose your nearest airfield and flight training school or club. Meeting pilots (whether students or instructors/examiners) and aircraft owners is the first step into this world of flying which is often not as frightening as you might imagine. This is why we have an article on cost sharing, and explain sharing aircraft in groups. For many this represents a cost-effective way to fly and enjoy the pride that comes with owning a share in an aircraft.



AOPA Flying Directory 2016/17

Your essential guide to GA including a comprehensive listing of AOPA Corporate Members:

iii	Obtaining a PPL
iv	Sponsor: Jeppesen
vi	Flight Cost Sharing
viii	AOPA Wings Scheme
x	French for Pilots
xi	D&D Guide (121.5MHz)
xv	AOPA Flying Directory
xxii	Becoming an Instructor

Obtaining a Private Pilot Licence (PPL)

This Flying Directory can't give you all the information you need on the opportunities available in flying, but it will give you the list of contacts you need. There is also a large amount of information available on the AOPA website (www.aopa.co.uk).

For example you can find information about the AOPA aerobatics certificate or AOPA companion's course, instructor seminars and many other things.

In the UK the central reference for pilot licencing and related matters is now CAP 804, which can be found on the CAA's website (www.caa.co.uk). The CAA website also provides information about medical examiners, as to do a full PPL you will need a 'Class 2' medical (commercial pilots need a 'Class 1' medical). Another useful and interesting document that prospective PPLs will need to know well, as they will have a test to get their radiotelephony licence, is CAP 413, also available on the CAA site.

For many pilots the starting point is the 30-hour Light Aircraft Pilot Licence (LAPL), for which you need only a LAPL medical certificate from your GP. This can also enable those who are unable to get a Class 2 medical any more to continue to fly on a LAPL.

However, the LAPL pilot is restricted to day/night in visual flight rules (VFR), and no instrument qualifications can be added. Flying is limited to European airspace and max seating of four people, and aircraft max weight of two metric tons. Also the first 10 hours flying after issue must be without passengers.

A conversion can be done to full PPL later (with 15 hours of flying). The LAPL (which is also available for sailplanes/glider, balloons and helicopters under different rules) can be obtained at 17 years (16 for balloons and gliders).

To obtain a European (EASA) PPL(A), which is for fixed-wing Single Engine Piston (SEP) aircraft and is

administered in the UK by the CAA at Gatwick, you will need to complete 45 hours of flight training, a least 25 of which must be dual with an instructor. Then there is 10 hours of supervised solo flying - many do a first solo by their 10th hour and later do solo cross countries (after doing a couple with the instructor). One has to be at least 150 nautical miles (1nm = 1.15 statute miles) with two full-stop landings at other aerodromes.

Theory is very important and your course will contain quite a bit of ground school. You need to pass 9 exams, which can be taken at the flying club/school and have a pass mark of 75%. These are: Air Law, Operational Procedures, Human Performance, Navigation, Meteorology, Aircraft General Knowledge, Principles of Flight, Flight Performance & Planning, and Communications.

This doesn't seem so bad when you consider that to be a commercial pilot you'd need to take 14 more exams!



FLYING INSTRUCTOR REFRESHER SEMINARS



ARE YOU CURRENT?

FOR REVALIDATION OF AN FI CERTIFICATE THE HOLDER SHALL FULFIL TWO OF THE FOLLOWING THREE REQUIREMENTS:

1. AT LEAST 50 HOURS OF FLIGHT INSTRUCTION DURING THE VALIDITY OF THE CERTIFICATE AS FI, TRI, CTI, IRI, MI, OR EXAMINER.
2. ATTEND A FLIGHT INSTRUCTOR REFRESHER SEMINAR WITHIN THE VALIDITY OF THE CERTIFICATE.
3. PASS AN ASSESSEMENT OF COMPETENCE WITHIN THE 12 MONTHS PRECEDING THE EXPIRY OF THE CERTIFICATE.

FOR AT LEAST EACH ALTERNATE SUBSEQUENT REVALIDATION, AN ASSESSMENT OF COMPETENCE MUST BE UNDERTAKEN.

IN THE CASE OF A **RENEWAL** YOU SHOULD, WITHIN 12 MONTHS BEFORE RENEWAL, ATTEND A FLIGHT INSTRUCTOR REFRESHER SEMINAR **AND** PASS AN ASSESSMENT OF COMPETENCE.

**AOPA IS PLEASED TO ANNOUNCE THAT AN ADDITIONAL
FLIGHT INSTRUCTOR REFRESHER SEMINAR
WILL BE HELD AT THE AOPA OFFICES, 50A CAMBRIDGE STREET,
LONDON SW1V 4QQ on 8-9 NOVEMBER 2016.**

The London Seminars were last held 10 years ago and it is as a direct response to requests that AOPA is reinstating a London-based Seminar. The Seminar will be directed by David Scouller. The charges will remain the same, £240 for AOPA members and £275 for non-members, and will be run over two consecutive days. Your Flying Instructor Certificate will be revalidated, or renewed, and an attendance certificate will be issued as at the other seminars.

To register for a place call the AOPA office on 020 7834 5631 or join online at www.aopa.co.uk. There is ample accommodation locally – we are 5 minutes from Victoria Station.

The Seminar will start at 1100 and end at 1800 each day to facilitate travel.

Our main venue is in Abingdon and the dates for the next Seminars there are as follows:

13/14 September 2016

18/19 January 2017

10/11 May 2017

20/21 September 2017

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Take Your PPL Theory in London!



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

Remaining programme for 2016

Aircraft General Knowledge June 7, 9, 14, 16, 21

Principles of Flight June 23, 28, 30 July 5, 7

Revision July 12

Exams July 14

Performance July 19, 21, 26

Communication July 28, August 2

Revision August 4

Exams August 9

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

After You Get a PPL ...



Getting a PPL is a great achievement and your licence is the key to opening a lot of doors. Once you've completed those 9 exams, a radiotelephony exam, 45 hours of flight training and the skill test, and have your licence, you may want to try some cross-country excursions with friends or family. And once you have some experience you may want to help others to learn, and do an instructor rating (see page xxii). And/or you may choose to buy a share in an aircraft, or share the costs of your own aircraft or one you've rented or borrowed. Here we explain how cost sharing works, and how you as a PPL holder could take those interested in experiencing flying on 'Introductory Flights.'

Cost Sharing

Changes in European regulations have redefined the rules on cost sharing and non-commercial flights. The changes apply to non-complex aeroplanes and helicopters, sailplanes and balloons.

In this case the term non-complex should not be confused with the terminology used for, say, a single engined piston aeroplane with fixed landing gear and fixed propeller or complex for a single engined piston aeroplane with retractable landing gear and variable pitch propeller. In this case the definition of a complex aircraft is as defined in Article 3 (letter (j)) of the Basic Regulation:

After August 2016, the changes should apply to EASA aircraft throughout the EU. For non-EASA aircraft the application of these regulations will be dependent on implementation by the relevant member state.

In the UK, the CAA has already implemented the changes, so be aware, if leaving UK airspace, that other EU states may not yet have implemented the changes. The intention of the regulatory

"The intention of the regulatory changes is to allow cost sharing between friends and colleagues and not to provide an air taxi service to members of the public."

changes is to allow cost sharing between friends and colleagues and not to provide an air taxi service to members of the public.

In the UK, both EASA and non-EASA aircraft, including those on a permit to fly may be used, although if the aircraft is being hired for the flight, it must have either a Certificate of Airworthiness or be a type approved Permit To Fly aircraft, which is already permitted to be used for self fly hire within the terms of relevant exemptions.

'Complex motor-powered aircraft' shall mean:

An aeroplane:

- with a maximum certificated take-off mass exceeding 5,700 kg, or
- certificated for a maximum passenger seating configuration of more than nineteen, or
- certificated for operation with a minimum crew of at least two pilots, or
- equipped with (a) turbojet engine(s) or more than one turboprop engine;

or

A helicopter certificated:

- for a maximum take-off mass exceeding 3,175 kg, or
- for a maximum passenger seating configuration of more than nine, or
- for operation with a minimum crew of at least two pilots; or

A tilt-rotor aircraft

Cost Sharing

Key Points

- The maximum number of people who can share the direct costs of a flight has been increased from four to **six**, including the pilot.
- Direct costs include fuel, airfield charges and any aircraft rental fee.
- Any other costs not directly related to the flight, for example the annual cost of keeping, maintaining and operating an aircraft, cannot be shared and no profit can be made.
- *The requirement for those costs to be shared equally has been removed.*
- How much each individual person pays is not prescribed, but the pilot must pay something.
- A flight can now be advertised in advance, but it should be made clear that it is a cost sharing flight, and not commercial air transport under an Air Operator's Certificate (AOC), since it is an offence to advertise the sale of a public or commercial air transport flight without being in possession of an AOC.

Introductory Flights

Introductory flights are a new EASA provision designed to allow people to be taken on air experience tours in light aircraft. Provided the following conditions are met, **it is not necessary for the pilot to be an instructor** or for the flight to be operated under commercial air transport rules: The flight must be performed either via an EASA approved training organisation (ATO) with its principle place of business in the UK, or through an organisation created to promote aerial sport or leisure aviation, on the condition that:

- **The aircraft is either owned or dry leased by the organisation;**
- **Any profit made from the flights are kept within the organisation; and**
- **If non-members of the organisation are involved, for example members of the public, the flights represent only a marginal activity of the organisation.**

In the UK, EASA and non-EASA aircraft may be used. However, they must have a valid Certificate of Airworthiness, or be a type approved Permit To Fly aircraft that is permitted to be used for remunerated training and self fly hire within the terms of relevant exemptions. Trial Flights are not designed to replace the trial lesson in which a qualified instructor would give flight instruction. Flight time as a passenger on an introductory flight will not count as training towards the grant of a pilot's licence.

While holders of private licences may conduct introductory flights, they may not personally receive any payment for doing so.

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www.cubair.co.uk



After You Get a PPL ...

So You've Gained Your Pilot Wings – What Next?

The AOPA Wings Scheme

By Mick Elborn



It is a sad fact that the majority of Pilots stop flying within 5 years of earning their Pilot licence, despite the financial and emotional investment. It seems that many stop flying because they either get bored or lose confidence in their ability.

How do you prolong your enthusiasm for and enjoyment of flying and get the most out of your investment?

The answer for many long time flyers is to get involved with your local flying community through:

1. Social Clubs/Flying Groups
2. Organised flying trips away from base
3. Flying with a Mentor or Flying Friend
4. Social events with learning activities

Keep expanding your horizons and don't get trapped into a cycle of solitary flights in a club aircraft, hired for an hour or two, keeping to the local area or landing away at the same local airfields time after time.

If you are not in a position to own your own aircraft, buying a share in a well run group aircraft can be an affordable way to fly. If the group has a good social

side you may have the opportunity to fly with other members and extend your flying range by sharing the flying.

"Keep expanding your horizons and don't get trapped into a cycle of solitary flights in a club aircraft, hired for an hour or two, keeping to the local area or landing away at the same local airfields time after time."

As a pilot you will be used to planning each flying trip, so why not have a plan for your continued flying enjoyment and development?

The AOPA Wings Award Scheme, the first of its type and the first to be endorsed by the CAA's PROUD initiative, provides you with a structured framework to do just this. It is freely

available to be adopted by any Flying Club, Pilot Group or individual Pilots. You can even propose your own local activities to make the scheme more meaningful to you where you are based, subject to validation by AOPA.

The scheme is open to all Private or Professional Pilots flying single pilot aeroplanes or helicopters, whether or not they are AOPA members. In meeting the requirements of the scheme the applicant is expected to seek to attain high standards in training, engage in thorough preparation, make the correct use of standard operating procedures and display sound levels of airmanship.

There are four levels of award in the scheme:

Bronze
Silver
Gold
Platinum

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For BRONZE

Bronze wings are offered FREE to anyone who has gained a pilot licence and applies to AOPA.

For the higher levels of award, additional criteria need to be met:

Minimum Flight Times, both Total and as Pilot-in-Command (PIC);

Achievements;

Seminar Attendance;

Air Touring Experience;

For SILVER

An accumulated total of 300 nm of touring flights of not less than 30 nm per flight;

The pilot is to be PIC for each flight claimed;

the aerodromes of departure and arrival must be different; and

the pilot must have flown at a total of no less than 3 different aerodromes.

For GOLD

An accumulated total of 500 nm of touring flights of not less than 30 nm per flight, which may include previous touring flights at Silver level;

One flight is to be a VFR cross-country flight, which may include an overnight stop, of at least 300 nm (aeroplanes) / 100 nm (helicopters), in the course of which full stop landings at 2 aerodromes different from the aerodrome of departure are made; each leg should be flown consecutively;

The pilot is to be PIC for each flight claimed;

the aerodromes of departure and arrival must be different (except for the 300/100 nm flight); and

the pilot must have flown at a total of no less than 4 different aerodromes.

For PLATINUM

An accumulated total of 600 nm of touring flights of not less than 30 nm per flight, which may include previous touring flights at Silver and/or Gold level. One flight is to be a VFR cross-country flight, which may include an overnight stop, of at least 450 nm (aeroplanes) / 150 nm (helicopters), in the course of which full stop landings at 3 aerodromes different from the aerodrome of departure are made; each leg should be flown consecutively;

The pilot is to be PIC for each flight claimed;

the aerodromes of departure and arrival must be different (except for the 450/150 nm flight); and

the pilot must have flown at a total of no less than 5 different aerodromes.

Full details and application forms can be found on the AOPA UK website at www.aopa.co.uk.



Speaking French to the French

MARTIN WELLINGS gives a lesson in aviation French for private pilots ...

"The Cardinal rule – don't let a lack of knowledge of French get in the way of a good French meal over the Channel!"



We all know that English is the international language in aviation, but not quite international, as at small airfields in France, or when there is no air traffic service, French is de rigueur (as they say in France). One does not need to get hung up on the language issue, and the basic procedure can be boiled down to a few basic phrases, particularly when the requirement to speak French is usually when there is no ATC operating, and you are just advising other French pilots. The basic drill is to prefix the call "Le Touquet traffic" (or other airfield) and pass the message, so just add one of the very basic phrases.

Arrival/Join:

C182 (a/c type) inbound to you
C182 a destination de vos installation
(*C182 are destinasyon der vozs instalassion*)

Inbound from
En provenance
(*Oh provydaruse*)

Level at 2,000 feet
Stable a deux mille pied
(*Starbler ah der meal pee-ed*)

Estimating overhead at 53
Terrain estime a 53 (cinq trois)
(*Terra estimay ah 53 (sank twa)*)

In the Circuit:

Overhead
Verticale – (*Vertycal*)
Downwind (left hand/right hand)
Vent arrière (main droit/main gauche) – (*Vont arryair (man d'wat/man go-sh)*)

Base
En base (*Oh bass*)
Finals (for 32/14.)
Finale (pour 32/14) (*Feenal (poor tront der/cat-oars)*)

Going Around
Remis des gaz (*Remy day gaz*)
Runway vacated
Piste degage (*Peest daygarjay*)

Taxi & Departure:

Taxi
Taxi (*Taxi*)
Holding point
Point d'arrêt (*Pwant darray*)
Backtracking
Remonte (*Remontay*)
Lining up
M'aligne (*Ma-lean*)
Take-off
Décollage (*Daycollage*)
Climb
En montee (*Or monty*)
Right/Left turn out
Virage a droit/gauche
(*Veeage ah d'wat/gauch*)
Leaving circuit to north/south
En sortie de circuit dans le nord/sud
(*Or sorty der circy daw ler nor/sood*).

121.5 MHz D&D Guide for Pilots



This article is designed to be kept as a handy reminder of how to use the Distress & Diversion cell if lost or disorientated in flight.

Remember, it makes sense to practice!

***By Flt. Lt. Nick Perrott
Officer Commanding
Distress and Diversion Cell***

The weather forecast is good and you have a spare day to go flying. Why not brush up on your navigational skills and land away at an aerodrome you have never visited before? What could possibly go wrong? Better make sure that the aeroplane is full of fuel and do a thorough external check – it has been unused for well over a month. Everything checks out and you are ready to go!

All is fine and the navigation is going according to plan, avoiding controlled and restricted airspace, but it is getting a bit hazy and the north westerly is picking up. The engine sounds a bit rough, but it is a good workhorse and has never let you down. The GPS that was fitted three months ago is great and the instruction handbook you read this morning was easy to follow.

The transponder is set to 7000, but you have not had a mode C airborne check in ages. The trim setting is fine, but you are adjusting it much more than usual and the wheel is very stiff; anyway, back to remembering what that manual said. You look up and it is apparent that you are unsure of your position, but it is not a problem - just press on.

Now you are lost - but surely very soon you will recognise a landmark? Now the engine is sounding very rough - let's just press on, it has never let you down (if you say it often enough you will start to believe it).

You are now very concerned and are unsure at first what to do or who to call.

You remember that the emergency frequency is 121.5 MHz and decide to call Distress and Diversion (D&D), but you have not called them in years.

What do you say?

What can they do for you?

"Am I going to die?" you think to yourself.

It all sounds melodramatic but does happen. You would be amazed how a few basic mistakes can snowball; if any doubt exists, do something rather than nothing!

D&D is manned 24 hours to provide an emergency and fixer service for all military and civil aircraft on 243.0 Mhz and 121.5 MHz.

Experienced controllers and support controllers are able to provide assistance and guidance to all aviators, and practice calls are highly recommended.

D&D have the facilities to provide a fixer service for aircraft in an emergency or practice emergency on VHF.

This service provides a non-radar position report based on Direction Finding (DF) equipment and may have a +/- error of 3nm.

Radar can be used in conjunction with DF for an accurate position report inside radar coverage; but the use of a transponder makes identification much quicker and easier. Therefore, it is essential that you can operate all the equipment inside the aircraft. One day it may just save your life!

D&D assimilate and disseminate information on aircraft emergencies; such information is critical to provide the best possible outcome. Emergencies are broken down into two categories:

DISTRESS

A condition of being threatened by serious and/or imminent danger and of requiring immediate assistance. A MAYDAY should be declared.

URGENCY

A condition concerning the safety of an Air System (including lost) or other vehicle or of some person on board or within sight, but does not require immediate assistance. A PAN should be declared.

Both emergencies can be passed on behalf of another aircraft if it is seen in distress and doubt exists about its safety.

ADDITIONAL USEFUL FACTS:

- D&D can provide information in an emergency on airfield serviceability, opening times, runway lengths, weather and its tendency, regional pressure settings and myriad additional information through official publications and contacts...
- Additionally, we can request assistance from the Police, Fire and Medical services or receive information from them...
- The Rescue Co-ordination Centre at Fareham have the authority to launch rescue helicopters based around the UK, a helicopter is automatically launched if a MAYDAY call is received...
- Helicopters are strategically based around the UK, and are at 15 minutes Readiness State during the day and 45 minutes by night...
- The service that D&D provide is unique to the UK and available to you. Practice calls are actively encouraged from all aviators. The more you practice the easier it becomes. If you do not get it right the first time just call again until you are happy...

You can download a Pilot's Guide to D&D and Practice Emergencies via the RAF(U) Swanwick website (www.raf.mod.uk/latccmilswanwick)

We look forward to your next call; remember, the service is free and we need the practice too!

For more information please contact:

**Flight Sergeant Jay Ferguson
RAF (U) SWANWICK
HAMPSHIRE SO31 7AY**

Name: Jay Ferguson
Email: SWK-MCO@MOD.UK
swanwickmco@gmail.com
Tel: +44 (0)1489 612691
Fax: +44 (0)1489 612392
Mobile: +44 (0)7768 290529



Triangulation.



D&D Base of DF coverage on 121.5

Position fixes can be obtained instantaneously on transmission when within the London TMA down to and including 2000'.

Outside the London TMA down to 3000'. (Below these altitudes DF coverage may still be available depending on obstacles / atmospheric conditions / distance from DF receivers).

Position Fixing

D&D has the unique ability to provide accurate position fixing using DF (Direction Finding) traces on an Auto-Triangulation display.

The system has the following advantages:

The display uses Ordnance Survey mapping to enable position reports with reference to towns/villages/geographical features.

Steers can be provided to the nearest aerodrome or any aerodrome requested by the pilot.

The system can be used for any pilot within the UK FIR and it is a free service.

The service is available 24 hours a day every day.

The service is available for pilots who are lost or unsure of position.

The service is available for practise/training fixes whenever requested.

The D&D Cell encourages training fixes for controller training.

Contact Details

Address -

Distress and Diversion
Box 13
London Area Control Centre
Sopwith Way
Swanwick
Hampshire
SO31 7AY

Telephone -

Military - 95586 2691
Civil - 01489 612691
Fax - 01489 612392

E-Mail -

d&d.mil@nats.co.uk

**Aircrew and ATC are encouraged to visit.
Please contact D&D via details above for more information.**

Pilot Notes

Remember - we are here to help you.



Updated Feb 16

Distress and Diversion Cell (D&D)



Callsign "London Centre"



Distress and Diversion

The Distress and Diversion Cell is the emergency centre of RAF(U) Swanwick, based at the London Area Control Centre (LACC) near Southampton. The purpose of this pocket brief is to provide you, our aircrew customers, with essential safety and operational information needed for us to assist you when in an emergency. Our main aim remains to provide you with a safe and accurate service irrespective of your status to enable you to complete your sortie and for us to continue to provide enroute safety information to other airspace users.

Please do not hesitate to contact us with any queries related to our area of operations.

Unit Tasks

Assistance to aircraft in emergency.

Carry out tracing action for missing/lost AC.

Facilities for Practice Emergency procedures on UHF and VHF Guard.

Provide an air traffic service to AC in emergency or transit to a diversion aerodrome.

Search and Rescue alerting service for both Military and Civil ac on UHF and VHF Guard.

Maintain and disseminate up to date weather information and serviceability state for



Distress and Diversion Areas of Responsibility

Airspace and Coverage

The D&D Area Of Responsibility (AOR) covers the entire UK out to the FIR boundary. Within this AOR the D&D cell is open 24hrs a day 365 days a year, monitoring both 121.5 and 243.0. D&D will respond to any emergencies that occur.

Emergency Frequencies

243.0 - **Military Guard emergencies.**

245.1 - **Military emergency practices.**

121.5 - **Civil emergencies.**

VHF DF Sites are located at:

Benbecula, Brawdy,
Cambridge, Chivenor,
Coningsby, Culdrose,
Leeming, Leuchars,
Linton-on-Ouse,
Little Rissington, Lossiemouth,
Manston, Newcastle,
Northolt, Odham,
Portland, Prestwick,
Shawbury, Silloth,
St Athan, Stormoway,
Thorney Island,
Tiree, Valley,
Wattisham, West Freugh,
Wick, Windyhead,
Wittering, Woodvale
and Yeovilton

PHRASEOLOGY

LISTEN OUT BEFORE TRANSMITTING

Aircraft - "**Practice Pan x3, Callsign, Practice Pan**".

London - "**Callsign, London centre, Practice Pan acknowledged, Pass details when ready**"

Aircraft - "**Practice Pan, Callsign, nature of Practice emergency and assistance required**".

Or...

Aircraft - "**Training fix, Training fix, Training fix, Callsign Training fix**".

London - "**Callsign, London Centre, your position indicates, do you require further assistance?**".

Note: position information is derived from Direction Finding (DF) equipment and not radar, hence position reports may have a +/- error of 3nms. If you require an exact position, Radar Identification is required.

TOP TIPS

Emergency squawk 7700,
RT Failure 7600,
Hijack 7500
FIR Lost 0030

– Please use them – if in a **real** emergency or lost, it will get our immediate attention and aid your identification.

When changing squawk to 7000 please be careful as it is only 1 digit away from 7700! We deal with every 7700 as an actual emergency.

If you file a flight plan IFR or VFR and deviate from it please **tell someone** as tracing action will be taken.

Also if you are in receipt of an ATIS and lose RT contact with the unit, when you have landed please let the unit know or we will assume you have had a problem and tracing action will begin.

Call early as pride can be a killer. Please practice as much as you want. It is free and one day it may save your or another person's life.

Flying Directory

2016/17 Listing of AOPA Corporate Members and their aircraft.

ALDERNEY FLYING CLUB

PO BOX 1133
Alderney
GY9 3XD
Tel. 01481 823053
E-mail: contact@flyalderney.com
Website: www.flyalderney.com
PA28 181 Archer II

GUERNSEY FLYING TRAINING LTD

LA PLANQUE LANE
FOREST
GY8 0DT
Tel. 01481 265267
Fax. 01481 263830
E-mail: gft@guernseyaeroclub.com
Website: www.guernseyaeroclub.com
We offer flying training with two fully equipped PA-28 Warriors (new in 1999) operating from our own hard standing adjacent to our recently extended club house and hangar. There is no VAT in Guernsey. Flying holidays in conjunction with Le Chene Hotel. One-to-one tuition PPL course with luxury accommodation in hotel with swimming pool 2 minutes from the airport.
2x Piper Warrior III

JERSEY AERO CLUB

JERSEY AIRPORT
L'avenue De La Reine Elizabeth the Second
ST PETER JE3 7BP
Tel. 01534 743990
Fax. 01534 741290
Email: info@jerseyaeroclub.com
Website: www.jerseyaeroclub.com
3x Piper Warrior
Cessna 150

AZURE FLYING CLUB

CRANFIELD AIRPORT
Building 187, Rooms F03/F04
Wharley End
CRANFIELD MK43 0JR
Tel. 01234 581580
Email: secretary@flyazure.com
Website: www.flyazure.com
Azure is a privately run club, formerly the Britannia Airways / Thomson Airways Flying Club. The purpose of the Club is to promote safe and affordable flying. We have two bases with a total of three PA28 aircraft. Cranfield covers membership north of London, and has two PA28s based. Wellesbourne Mountford has a single PA28 for members in the Midlands area. We have instructors at all bases who can cover everything from check rides to training for the Private Pilots Licence, IMC Rating and the Night Rating.
Aircraft:
2x PA28 (Cranfield)
PA28 (Wellesbourne Mountford)

WEST LONDON AERO CLUB

WHITE WALTHAM AIRFIELD
Waltham Road
MAIDENHEAD SL6 3NJ
Tel. 01628 823272
Fax. 01628 826070
Email: ops@wlac.co.uk
Website: www.wlac.co.uk
9x PA28 Warrior
PA28-180R Arrow
PA32R-301
PA18 Super Cub
Cessna 150
Cessna 172
Cessna 182
Beechcraft Duchess

AIRWAYS AERO ASSOC t/a BOOKER AVIATION

WYCOMBE AIR PARK
Booker
MARLOW SL7 3DP
Tel. 01494 529262
Fax. 01494 461237
Email: info@bookeraviation.aero
Website: www.bookeraviation.aero
Trial lesson including aerobatic trial lessons, PPL(A), LAPL(A), LAPL(A) to PPL(A) conversions, EASA Aerobatic rating, EASA Night rating, IR (SE and ME), CPL (SE and ME), FI courses, IRI course, CRI (SE and ME) courses, MEP class rating, SEP class rating, all levels of renewals / revalidations including FI and FE PPL/LAPL/CRE examiner.
3x DA-42
9x Cessna 152
4x PA28-181
PA28-236
PA28RT-201
FNPT-II sim
FNPT-I sim
3x Cessna 172
Slingsby T67M

BICKERTON'S AERODROMES LIMITED

DENHAM AERODROME
Tilehouse Lane, DENHAM
UXBRIDGE UB9 5DF
Tel. 01895 832161
Fax. 01895 833486
Website: www.egld.com

LAPWING FLYING GROUP

Denham Aerodrome
Tilehouse Lane, Denham
UXBRIDGE UB9 5DF
Tel. 01895 833880 (Clubhouse weekends only)
Email: MartinBowley@hotmail.com
Website: www.lapwingflyinggroup.co.uk
A small friendly flying group, now in our 50th year of continuous operation.
PA28-151

RAF HALTON AERO CLUB

RAF HALTON
AYLESBURY HP22 5PG
Tel. 01296 622697
Email: opsman@haltonaeroclub.co.uk
Website: www.haltonaeroclub.org.uk
Civilian membership restricted.
3x Cessna 152
PA28
1 Citabria Aurora, 1 Aquila

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Have you ever thought about becoming an instructor?

NICK WILCOCK outlines what you need to become an instructor. You don't need a CPL but you do need the theory. And you can be paid...

At a couple of recent AOPA UK committee meetings, we learned that there appears to be a looming shortage of PPL instructors. So I asked around IAOPA (Europe) and several AOPAs advised me that they're also beginning to see a shortage. It's reported that airlines are beginning to recruit again, so perhaps some existing instructors are heading that way - but why are so few people coming forward to replace them, unless they too are hoping to build hours before applying to the airlines? Perhaps the main reason is that most PPL holders don't actually know what options are available to them as potential instructors, so let's have a look at them:

Do I need a CPL to be paid?

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

Do I need to sit loads of exams?

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

What about the LAPL/FI?

LAPL holders may not include an instructor certificate in their licences; all *ab initio* LAPL instruction has to be provided by at least a PPL/FI. Originally there was to be an EASA animal termed a Light Aircraft Flight Instructor to support the needs of LAPL training, but with lower training requirements than are required for an FI.

This proposal was also rejected; as a compromise, following observations by certain Member States, the CPL exam requirement does not apply to FIs wishing to instruct only for the LAPL and associated ratings. So if you want to instruct for the LAPL, first persuade your local club to start marketing the LAPL rather more positively. Then, once you meet the pre-course prerequisites, you can start an FI course without needing to sit any more EASA exams. You will also be able to instruct for the NPPL and if any of your students decide to change to a PPL course instead of a LAPL or NPPL course, then any training you may have given to them can be credited towards the PPL.

Pre-course prerequisites?

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

- *Received at least 10 hours of instrument flight instruction on aeroplanes, of which not more than five hours may be instrument ground time in an FSTD.*
- *Completed 20 hours of VFR cross-country flight as PIC on aeroplanes.*
- *Except for an FI(A) providing training for the LAPL(A), met the requirements for CPL theoretical knowledge.*

- *Completed at least 200 hours of flight time on aeroplanes or TMGs, of which 150 hours must be as PIC.*
- *Completed at least 30 hours on single-engine piston powered aeroplanes of which at least five hours must have been completed during the six month period preceding the pre-entry flight test for the FI course.*
- *As PIC, completed a VFR cross-country flight of at least 300 nm, including two intermediate landings.*

So an experienced PPL holder may well find that he/she already meets most of the prerequisites to provide instruction for the LAPL, but then if you're hoping to instruct for the PPL, we come back to the topic of exams. It's becoming evident that the CPL exam hurdle is the one real obstacle faced by the suitably experienced PPL holder who would like to do some instructing, perhaps on a part-time basis as an escape from the day job. But in previous times, the pre-course requirements included an exam to check that the aspirant FI had the appropriate level of theoretical knowledge, rather than CPL knowledge.

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

So we think that it's high time to press-to-test on this and to propose a return to rather more pragmatic previous ways. At the forthcoming EASA FCL

Implementation Forum I intend to seek members' views concerning a proposal for the amendment of FCL.915.FI(b) (2) to include an option of 'a pre-course written exam approved by the competent authority and conducted by the ATO, which will confirm that the FI(A) course applicant has demonstrated an appropriate level of theoretical knowledge to be able to exercise instructional privileges for the PPL(A) and LAPL(A).' This would be a rather more proportionate approach.

Several European AOPAs are already supportive, as are the UK ATOs with whom I've spoken. AOPA already has the Ground Instructor Course pre-entry written exam, so with a little tweaking and titivating, a pre-FI course exam could be developed pretty quickly from the GIC exam. But at the meeting we were told that the group considering Learning Objectives is already looking into a reduction of theoretical knowledge requirements for PPL/FIs, so perhaps change is in the air?

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

Are other instructional qualifications available at PPL level?

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

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

See CAP 804 Part I Section 4 part J subpart 3 for full details - and if you haven't already done so, download CAP 804 from the CAA's website.

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

What does the FI course include?

Having met the pre-requisites and passed the pre-entry flight test, the course itself consists of:

25 hours of 'teaching and learning'

100 hours of theoretical knowledge instruction

30 hours of flight instruction and, finally

An 'assessment of competence' taken with a Flight Instructor Examiner, which also includes a ground oral examination.

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

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

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

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

Are there any restrictions on newly-qualified instructors?

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

Are there any FI revalidation requirements?

Yes. The FI certificate is valid for 3 years and may only be revalidated if you have met the relevant criteria by completing two of the options of having either

1. Conducted 50 hours of flight instruction, 2. Received refresher training at an FI seminar or, 3. In the final year of the validity period, passed an assessment of competence. For at least every alternate revalidation, the assessment of competence is a mandatory requirement.

But will I earn much money?

It's perhaps not fair to accuse training organisations of paying their FIs as little as they can get away with, although at times some FIs might feel that this is indeed the case! In recent years, airline recruiting hasn't been particularly buoyant and there were few financial retention incentives for FIs, given that there were probably more around than the training world really needed. But things are beginning to change; for example, one popular UK airline has recently announced significant expansion and has placed a pilot supply contract with a major European ATO, which itself has now launched an FI recruitment drive.

Faced with all its FIs rushing off to the airlines, it's indeed likely that instructors' pay might improve. But don't forget that the cost of any pay increase will probably have to be recovered from the customers; to remain competitive, most flying training organisations try to keep their flying rates as low as possible, otherwise prospective trainees will look elsewhere. If airline recruitment really does take off at the level many predict, training organisations are going to find it much harder to retain their FIs, particularly those who have already obtained CPLs. Amending the Aircrew Regulation can often take many years, so if we are to avoid a dearth of PPL-level FIs in the coming years, we need to highlight the CPL exam problem to EASA without delay and that's my intention. Meanwhile, flying clubs could help themselves by looking more at the LAPL and by encouraging their more experienced PPL-holding members to think about becoming LAPL-level FIs. Worth thinking about?

CAP 804 is available as a PDF on the CAA website, www.caa.co.uk.

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Amazing AGLaze!

Aircraft are high-value assets so you need to do more than just clean and wax occasionally like the average car. Luckily help is at hand and you could have a bonded layer applied to provide protection that will last years, and have a wide range of benefits. IAN SHEPPARD spoke to RICHARD RUSSELL of AGLaze Airauto.



As soon as an aircraft starts its life it is starting to lose its original cleanliness, surface finish and is often subject to everything from hot sun to water to foreign objects, and even just dirt and flies. And often also oil and grease and hot exhaust fumes.

So it makes sense to protect it and there is a way of doing this that is starting to become very popular. Not wash and wax, something more advanced with a chemical mix that creates a protective layer with various functions.

AGLaze surface “sealant” is one that has gained traction in aviation with approvals flowing from a number of leading manufacturers, from Boeing to Gulfstream. Not to mention being popular in the world of luxury and high-end cars, though it could be affordable for anyone that wants to protect their light aircraft or car to help extend the life of the outer surfaces.

Actually AGLaze started to be used by airlines in the mid-1990s, and the likes of British Airways and Qantas have their

aircraft on the AGLaze Sealant Program. AGLaze (the version for aviation use is specially formulated) protects against acid rain, snow, salt, industrial fallout, corrosion, oxidation, colour fading and UV rays. AGLaze claims that the protection is “saving the airlines millions of pounds by doubling the paint life of their fleets.

AGLaze is not a normal sealant or a wax, as it chemically bonds to the underlying surface to create a high-gloss barrier. Thus the surface no longer



provides a 'key' for dirt particles to stick to, and has less drag with the flow of air/water across the surface being significantly improved. This can be seen in comparative electron microscope scans, one surface rough but the other far smoother. AGLaze has been tested extensively to measure the fuel savings achieved with commercial aircraft. In late 2011 a partnership with Airbourne Colours (which has a paint facility at Bournemouth airport) a test used a BMI Baby 737-300 equipped with Boeing's Airplane Performance Monitoring System. The test showed a 0.8% fuel burn reduction, which would equate to 161 tons of fuel per year.

Clean Start

AGLaze Airauto was started in 2012 by Richard Russell and it was when Richard was at Hangar 9 at Redhill Aerodrome that Aircraft Owner & Pilot first became aware of the potential for AGLaze to protect and improve GA aircraft of all ages. We asked him to AGLaze a Cirrus SR22 that had been sitting outside for a

long time and was not used much, and the surface had become dull and oxidised.

Richard started using AGLaze in 2002 at a large Landrover dealership, which made him realize the potential market. Aviation AGLaze is different and he found himself AGLazing the occasional aircraft.

"Composite aircraft benefit from Aviation AGLaze as it forms a lasting

The 6 fluorocarbon polymers in Aviation AGLaze have the following properties:

1. Gloss Enhancer
2. Oil Repellant
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4. UV Protector
5. Protects Against Industrial Fallout and Acid Rain
6. Self Leveller (An organic oil that provides flow/self healing properties, keeping the surface level).

protection for the gel coat eliminating the need for yearly hand wax applications. AGLazed aircraft are easier to clean, have an improved gloss and paint life is extended."

Aviation AGLaze is approved by Boeing, Airbus, BAE Systems and Gulfstream. "When I first started in Aviation AGLaze I went to Jonathan Cadelon at FTA Shoreham and did a demo on a wing of a Diamond DA40. He was very pleased and agreed for me to AGLaze their fleet of Diamond aircraft," said Richard.

"I also did helicopters starting out by doing a demo for James Morrey and Spencer Philips at Shoreham Airport-based Advance Helicopters. This was on a Robinson R22 and since then several helicopters have had AGLaze treatments at their hangar. Now I look after their helicopters doing monthly cleaning."

Chemical Bonding

Aviation AGLaze is a fluorocarbon paint sealant that bonds to the surface of the aircraft creating an ultra-thin layer with

Some examples of aircraft Richard has AGLazed: A Beech Baron at Lydd, a Pilatus PC-12 and an AW109 helicopter.



a far more uniform surface, protecting in several different ways.

The new smoother finish no longer provides a 'key' for dirt particles to stick to and is far more water-repellant, as well as being resistant to acid rain and fallout.

The smoother surface has less drag than before and this was proven in windtunnel tests in May 2012 at the Aircraft Research Association's windtunnel.

In addition the sealant also contains specialist UV absorbers which reflect the UV red light, preventing UV damage to the protected surface.

Russell said that AGLaze is "a cost-effective method of maintaining both the appearance and performance of all aircraft types."

Testing by SMI of Miami, Florida in 2012 for Boeing and BAE Systems included a sandwich corrosion test, acrylic crazing test, paint softening test and hydrogen embrittlement test, all of which AGLaze conformed with.



Richard Russell works on a Cirrus SR22 to illustrate what is involved - in some cases machine polishing first, and a good clean before the AGLaze is applied is essential.



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IAOPA Regional Meeting, Ljubljana, Slovenia

15-17 April 2016

The latest IAOPA Regional Meeting was held in Ljubljana's Grand Union Hotel, on Saturday 16th April 2016. IAOPA regional vice-president for Europe Martin Robinson chaired the meeting with AOPA Slovenia being the hosts of what was a very successful three days. There were manufacturer briefings on the Friday evening and on the Sunday a visit to Bled Airfield, to fly over the famous lake with its castle, church on an island and Tito's former mansion.

The meeting started with Martin Robinson, IAOPA senior v-p Europe, thanking AOPA Slovenia for the previous evening's event, where some of the country's aircraft manufacturers such as Pipistrel gave presentations. The date of the meeting was designed to be just before the AERO event in Friedrichshafen.

Martin introduced the AOPA Slovenia hosts, Peter Ravnak, Zdravko Stare and Mihael Matevzic. IAOPA secretary general Craig Spence introduced Jiri Marousek, AOPA (US) senior v-p marketing and in charge of the new rebranding for AOPA/IAOPA, including updating the website.

Spence mentioned that planning was continuing for the IAOPA World Assembly, which is to be held in Chicago, 21-24 July. Spence said that the agenda was almost finalised and would include Dr Fang Lui, secretary general of ICAO, Patrick Ky, EASA executive director, and FAA administrator Michael Huerta.

Spence also said that he had sent a statistical survey to all AOPAs to create the "most comprehensive database of GA activity anywhere." It will be "used for a number of reasons, including the show the impact of regulations," he added.



Martin Robinson and Craig Spence, IAOPA secretary general. IAOPA is based in Frederick, Maryland, some 30 miles north-west of Washington D.C.

Also circulated was a resolution package for the upcoming World Assembly, including a draft template for formatting proposed resolutions. "These will shape IAOPA activity for the next two years," said Spence.

Martin Robinson noted that "There is no other GA organisation in the world that does what IAOPA does." He said that its resolutions could be used by AOPA reps in their home countries, telling politicians and regulators that "the policies are globally agreed through the IAOPA process. Take them to your regulator – this is part of the value chain!"

He added that "Resolutions are important work—what you do with the resolutions dictates what Frank [Hofmann, IAOPA's ICAO rep based in Montreal and present at the meeting] does for the next ten years, and is taken seriously." Finally, Martin said that there were old resolutions that needed refreshing, "So do please make suggestions."

Frank Hofmann told delegates, "It is very important that we present a unified picture of all the AOPAs worldwide. Regulators want that as it gives credibility."

Michael Erb, who is the chair of the GA subgroup of the EASA SSCC committee, gave his report on progress on EASA matters.

He said that with Part M Light the CRD and Opinion had been published, so that maintenance on GA aircraft would in future be "significantly less complex and will cost less" [even though falling well short of what AOPA originally sought]. He added that "some good progress" was being made with the GA Roadmap.

Nick Wilcock, of AOPA UK and IAOPA Europe's FCL rep, then discussed proposals for Basic Training Organisations saying "it looks like they'll be only for VFR and SEP.", adding that the whole issue had become "hugely political". He suggested that non-complex ATO requirements would have been better. He noted however that the "opt out" for ATOs that must become RFs "has a hard deadline."

Nick then talked about the lack of uptake of the LAPL around Europe. "I think it's because the first ten hours [after you pass] you're not allowed to fly with passengers." A proposal to EASA is to allow these to be done with an instructor. A Swiss lawyer/pilot that was present (pictured above right) said, "the LAPL is not popular. You still need all the same theory etc but for Swiss pilots they're locked in. It's not an ICAO compliant licence so you can't go beyond the border – and in Switzerland you need to go beyond the border!"



Then the need for FIs to have commercial-level knowledge was touched upon and Nick said there was an NPA coming out on the theoretical knowledge requirements. A drop in the number of instructors in Europe is leading to pressure to reduce the requirements. Instructors without CPL level knowledge can only teach to LAPL.

Craig Spence mentioned the “Rusty Pilots Course” that was developed by AOPA in the US, which the FAA has accepted as the ground portion of the Biennial Flight Review (BFR). He said that he would provide it to IAOPA Europe in a form it could be customised.

Michael Erb said that AOPA Germany does annual “training camps”. He explained, “We reach around ten percent of our membership a year. They are usually over long weekends. With the one in Bavaria we fly into the Alps for a week. Anyone can do it, and we take instructors and ask the airfield [where we go] for reduced landing fees.”

Eugenie then asked Nick about EASA/FAA mutual recognition of licences. “We’re still waiting for the BASA agreement to be ratified,” he said. “EASA has given the nod to an extended exemption by one year, which is in law now.” He said that the UK CAA has issued a temporary derogation already but there was “a difficulty if you want to fly in a country that hasn’t accepted the derogation/opt out and you want to fly an N-Reg aircraft on an FAA licence to there.” Michael pointed out that the derogations we on a spreadsheet available on EASA’s website.

Erb noted that BASA “exists” but the administrative annex is delayed due to wording issues. But it is expected that the annex will be ratified by mid-2016. “So it makes sense to put this back until April 2017.” Martin Robinson suggested that it may be a good idea to notify trusts through which foreign individuals own N-reg aircraft overseas that the changes are coming.



The delegates enjoyed dinner at Ljubljana Castle, with stunning views over the Slovenian capital. Slovenia was part of Yugoslavia between 1929 and 1991 and joined the EU in 2004. A dragon in the Ljubljana coat of arms is the symbol of the capital of Slovenia. Legend has it that one day Jason and his Argonauts sailed up the Danube, then the Sava river and finally stopped at the source of the river Ljubljanica where Jason fought a terrible moor monster, which looked like a dragon.



Jacob Pedersen then gave an update on issues he handles for IAOPA Europe. He noted on RNP approaches, “We fiercely opposed having two IRs, one with GPS privileges and one without. Other people said that some training schools don’t have aircraft that can do GPS. The compromise was that there will be one licence and after 2020 every flying school must give training that includes RNP/GPS approaches.” He noted that those that have already got GPS training “get grandfathered. So you will be able to get an add-on to your IR.”

Following a question from a Greek delegate, Jacob said, “A lot of pilots with licences from outside the EU don’t know if they can fly in Europe or not. It’s complex, and different from country to country.” But he noted that issues were being solved through IAOPA’s work one by one, examples being oxygen

requirements, and dangerous goods regulations.

Craig Spence said that AOPA runs a Pilot Information Center manned by certified FIs “who know the regulations. And we have two people that are familiar with international regulations too.” Billy Costa, from AOPA Greece, said it would be good to have such a help line in Europe as “sometimes I need help but I don’t even know how to look it up.”

The discussion moved on to the upcoming revision of the Basic Regulation (BR) that governs EASA in EU law. Martin Robinson said that the update was 180 pages plus annexes. “I think it’s a huge step in the right direction; it’s something we’ve been asking for for many years. Once published and it is law, EASA will have a five-year period to clear existing regulations to ensure all regulations



AOPA Slovenia hosts during the meeting, including Zdravko Stare, Peter Ravnak, Peter Marn (centre) and Mihael Matevzic (far right).

comply with the proportional, risk-based approach.” Martin said he was looking for comments on his report on the BR from the national AOPAs that would be affected, “as [the new BR] will be the rules for the next 10 years!” The BR will get two readings in the European Parliament and one in Council and then it will go for a vote.

Jacob Pedersen said he was really concerned about the removal of the ‘commercial operation’ definition from the BR. After discussion it was decided that Martin should propose to the EC that commercial operation is reinserted and that the simpler ICAO definition is used for CAT. A Slovenian rep said not to forget about aerial work, and Martin replied that the ICAO definition of aerial work came out in 1985 and that it “falls within our purview.”

Concluding, Martin said that the BR is due to become law in late Q2, 2017, during the Dutch presidency of the EU. He noted that “the Dutch seem to be quite proactive on discussing it.”

Moving on, Martin Robinson discussed satellite navigation, with there being a project in place to “try to get some of our aerodromes live with GPS approaches.” He said “We [AOPA UK] were successful in getting €250,000 in funding covering three aerodromes: Haverfordwest (in west Wales), Gloucester and Stapleford.”

With SESAR Phase I ending in mid-2016 he said that some projects

are being “repackaged” under the new SESAR 2020. “We would like to achieve a European AOPA position we can submit to SESAR [Joint Undertaking] on what GA needs. SESAR can build on that and you can take it to your member states too.”

Martin Robinson then introduced Philip Church, principal consultant at Helios, who has been advising AOPA and looking at “how we can influence and encourage greater use of non-certified equipment.”

Philip said “SESAR is mainly driven by the interests of the ANSPs and airlines” with GA having “no direct [influence] on the programme. But you need involvement within SESAR to influence it.”

He said that, in his view, the impact of SESAR on GA was increased costs of €280 million, “And SESAR has not even quantified what the benefits will be for GA.” Meanwhile, “Airlines etc will increasingly be able to go through Class Golf airspace.”

Philip stated “IAOPA has been clear and in February 2015 we reiterated the priorities” including access to infrastructure and information. He said that a draft paper was being prepared and IAOPA Europe is now “waiting for a meeting with the Commission.”

Michael Erb said that IAOPA started contributing to the foundation of SESAR in 2004. “Then we were one of 30 contract partners—but now the project is structured as a public private partnership and those who can contribute financially have a stronger influence.” He concluded that IAOPA wants to issue a position paper on SESAR JU “but we need your feedback.”

Nick Wilcock said that commercial operators are pushing for more controlled airspace. “My view is if the low fare airlines get the network benefit, the cost should be transferred to them from GA.” He also queried the effect of proposals for Advanced RNP could have on GA. “Does it mean all airfields in that TMA have to [comply]? They need to take into account the potential impact or we end up trying to play catch-up.”

Craig Spence said, “If anything concerns me about GA continuing to have access to airspace it is PBN. There is a move to make this standard so GA is cut out. There are only three GA aircraft

that are capable of flying RNP 0.3, and they are all owned by Honeywell!

“So things are being laid now where if the needs of GA are not considered, it will seriously affect us and we could get locked out in the future.” Philip Church said his concern was for example RNP into Antwerp “You’d think it was really good – but the volume of airspace needed is much larger than for the usual procedures. It caused quite a lot of problems, and even encroached on another CTR.”

Michael Erb said, “We could fly GPS approaches into our airfields independently but we have to fulfil the requirements of big airfields [e.g.



Jiri Marousek introduces the new IAOPA corporate image.

Heathrow, Frankfurt] when we’re near them. I don’t think our problem has been fully understood yet.” Martin said “It is worth flagging up that there is €280 million of expense lying in wait for GA.”

Philip (picture below left) said that IAOPA had asked SESAR JU to clarify what the airspace vision was; Martin responded by saying it has been discussed with SJU “and they have indicated that they will engage with us on this.”

Erb noted that on the one area mandated so far, datalinks, “airlines are absolutely frustrated with this... it just doesn’t work.” But he suggested that something like Flightradar24 in aircraft could help with visibility of the traffic environment. Martin said a paper would be circulated on airspace issues and noted, “I see there is no objection to us continuing this work.”

Finally, Martin said that commercial single-engine IFR could be cleared in Europe soon more generally, so this



could bring a new market. "We have to think about this kind of thing too," he said.

A talk was then given by Bogdan Petricel, senior ATC expert from Eurocontrol who said the current 2012 mandate requires 8.33kHz radios in all EU airspace by 31st December 2018. He showed a slide that illustrated how there is little choice but to do this with current growth, suggesting that delegates visit the Eurocontrol website where the rationale behind the implementing rule (IR 1079/2012) has been published. The first milestone will be 1st January 2018 when all equipment in the EU will have to be 8.33 capable, then all frequencies switch to 8.33 channels at the end of 2018 (the year allows for testing etc).

"Some states will then not allow you to fly if not equipped...although the EC can grant exemptions," Bogdan told delegates.

"The penalty for inaction is that it hits economic development – new airports and runways, aerodromes and new services (ATIS, FIS etc), and special event frequencies, along with the potential for interference increasing."

He said the potential benefits to GA included reduced detours around 8.33 areas, more frequencies for new aerodromes etc and reduced frequency interference and less frequency sharing.

Bogdan also said all new radio equipment that has been put into service since 2013 has been 8.33 capable, and highlighted the 8.33 Implementation Support Project that starts this year. "This will help to spread awareness. Anyone can join the Implementation Support Group and we do want you to come to the meetings if you can."

In each state, he said, there were state national coordinators (SNCs) who can liaise with all airspace users – military, GA, airfields etc in their state. Bogdan said he would distribute a list of SNCs that IAOPA Europe could publish. He also said that Eurocontrol "wants to do an inventory of existing equipment" (in use and available) with information about installations, interference, certification. "And we will make this public too," he added.

Bogdan explained that "an 8.33 channel is not a frequency...it's not the carrier frequency so you can't dial it up on your 25kHz box!" There is a central frequency and two side bands for each channel, + and – 8.33kHz removed.

On funding he said "We tried to get a funding scheme but we need to know the cost to equip, how many aircraft are out there – as it is possible to apply for EC funding support through the TEN-T [transport funding] program. Try to convince your [state] coordinator to apply on a state basis, as you can't do it owner-by-owner. But if you engage on this it has to be very well organised." He said there would be a website going live in October or November this year where people could enter their details onto the aforementioned Eurocontrol database.

Martin Robinson warned "The longer we leave it, the more the risk the avionics shops won't be able to keep up with demand! We're going to run up against a buffer."

Please see full meeting report at iaopa.eu. A report on Slovenian airfields and a flight from Bled Airport over L. Bled will appear in the August issue of Aircraft Owner & Pilot.



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Letters

Airspace Experience

Dear Mr. Robinson [AOPA CEO],

I'm just reading your April 2016 AOPA magazine and note you request comments from members on Cat D airspace usage and fear of entry or refusal. I obtained my PPL at Liverpool John Lennon in April 2014 with Ravenair. I live far closer to City Airport Manchester (Barton). However, when researching where to learn to fly, I spoke to a great many people who choose to fly around the local area and visit only a selection of local airfields due to the airspace that surrounds the north-west. That was an envelope that I was keen to expand, as there is a thriving industry out there and I wanted to be part of it.

Speaking with Ravenair and the tour of the facilities that they gave me, I decided to train with them at Liverpool. It was quite a rush on my first solo to be lined up behind a Ryanair, with an Easyjet behind me. Bless that little PA38 Tomahawk. It was busy Class D airspace and my instruction was second to none.

Personally, I felt very comfortable with leaving and entering the airspace and transiting or clipping a corner with the requisite permission. My QXC for example was Liverpool, Halfpenny (FISO), Blackpool (ATC at the time) via the Low Level Route (listening squawk) and back to Liverpool. It pretty much covered everything.

I was taken to the tower to speak with controllers at Liverpool as part of my training. It was invaluable and this added a human element that is often feared, by way of that person on the other end of the radio. Controllers at Liverpool cannot be more accommodating and if you are refused entry, it'll be because you aren't familiar with the entry and exit points, which lets be honest, should have been part of your planning.

I have never experienced a problem subsequently, although I have heard less than proficient pilots stumble with their location and requests. Barton is great to fly from and I frequently request a basic service from Manchester Approach when crossing the Pennines, Yorkshire



bound. Similarly, I go into Liverpool to see my former FI once a year to keep my hand in with class D entry and exit so to speak. The confidence to speak with these parties comes from the necessity to do so and frequently, so I think that avoidance to request entry comes from lack of exposure and repeated requirement to keep up the skill set.

Had I learnt at Barton, would I be as confident at flying into Liverpool? Probably not. I can land a plane, but it would be speaking with the controllers that concerned me. I'd have likely booked

a trial lesson at a Class D airport for that exposure and I'd recommend that. Perhaps it could be an inclusion in the AOPA Wings scheme. Evidenced by the landing in the log book? I think people would go for that. I flew into 14 airfields in 2015, from grass strip to Class D and enjoyed them all. I'd love to visit the tower at Manchester and although they hold open days, it's hard to get a ticket. I almost won the trip at the GASCo safety evening at Barton, but not quite. I think access to a tower will reduce the fear of refusal. Perhaps this could be considered as Wings criteria? Perhaps consideration could also be given to the biannual with the instructor. What better way than to enter and exit Class D? As a side issue; Very recently, I have contributed to the website www.getintoflying.com and have reviewed a couple of airfields (more to come), and having validated my EASA licence to an FAA licence, covered that in a piece also. I will follow this up on my return from some New England flying adventures this coming June. [Getintoflying.com](http://www.getintoflying.com) is a keen promoter of GA flying and all that comes with it.

Andy Torkington
AOPA member

Hong Kong...

Dear Sir,

Having read with considerable interest your report on a recent visit to the Hong Kong Aviation Club, I was reminded of a visit there in 1949 when I spent a week on Kai Tak on leave from RAF KL in what was then Malaya.

In case you might be interested in the then Hong Kong Flying Club I am sending you some copies of the light aircraft seen there in 1949. It could well be that the club equipment has not changed too much since then. How many of these are club aircraft rather than privately owned I do not know.

I have not been to HK since 2007, when we flew both into and out of CLK, a superb terminal compared with our Terminal 5 which was chaotic.

Best wishes,

Jack Wells
V-P AOPA

Below from top: Aeronca Champ, Cessna 170, Piper Cub, Harvard and a Ryan monoplane.



Engine Overhauls

Dear Sir,

In the April issue of the magazine I read a heartbreaking story by Martin Wellings and the disgraceful run-around he suffered when his engine was overhauled.

When I started in aviation a good many years ago I regarded all aviators as 'jolly good fellows', utterly reliable and trustworthy. Alas I have since learnt that there are as many rogues and crooks in aviation as there are in estate agency and second-hand car dealers.

What surprised me is that nowhere in the magazine was there any mention of the AOPA Code of Practice for Maintenance and Repair. Had Martin asked for this he may have had a better experience. My small maintenance firm subscribes to the code and we stick to it. [Ed. We intend to publish the Code again in the August issue].

Kind regards,

Michael Powell

Light Aircraft Inspection and
Maintenance, Norwich

Windshear Again!

Dear Sir,

It really is quite remarkable how some aviation myths endure in the face of clear evidence to the contrary. One such myth concerns the "downwind turn". Reader Roger Bunbury in the latest letter entitled "Windshear" (February 2016) makes an impressive contribution, citing words such as "inertia" (when describing "momentum") – but unfortunately he, like so many before him, has a firm grasp of the wrong end of the stick. The myth is quite easily put to bed and really, ought to have been a long time ago.

The start of this correspondence was a thoughtful letter written by Kristjan Arnason in August, 2015. Arnason is completely right to warn about the effect of the wind on groundspeed, urging pilots to watch their ASI, and not the surface, when turning close to the ground. However, the language he uses unfortunately also implies that performing a steep 180 turn from a headwind to a tailwind causes some kind



Proposal to Adopt BGA-style "Basic Instructor Rating" for Powered Flying

I was extremely pleased when the CAA's relaxation of regulation extended to allowing non-instructor pilots to conduct paid for "Trial Flights". This puts the power flying world in the same position as the BGA was in during the late 60's, 70's and early 80's. Glider pilots with a Bronze C (approximate BGA equivalent to a PPL) and 50 hours P1 were allowed to carry passengers, with the approval of the CFI of their club. This was generally interpreted to include members of the public who had purchased an "Air Experience Flight" the price of which included temporary membership of the club.

I became CFI of the gliding clubs at Wycombe Air Park (at that time the second largest gliding operation in the UK) in 1973. We followed the normal practice of allowing suitably qualified non-instructors to carry out these flights. I noticed, as the 1970's progressed, that we were selling increasing numbers of these flights, but the proportion of the participants who subsequently took up gliding was reducing. I decided, in 1979, to modify my requirements for carrying out these flights. Pilots qualified to carry passengers, under the BGA rules, would be allowed to continue to do so with their own friends and guests as passengers. However these pilots would only be allowed to fly with those who had purchased an Air Experience Flight if they underwent a 2 day course under my supervision (in fact I carried out all of the flying) in which they were taught to teach effects of controls and medium turns in exactly the same way as it was taught on an Instructor Course. I also used the opportunity for a refresher on stall/spin awareness and recovery and launch failures. The normal brief was that the pilot should always fly the take-off and launch and the latter part of the circuit, approach and landing.

The result was a modest improvement in the numbers taking up gliding following their Air Experience Flight. The BGA adopted the idea and in the mid 1980's it was introduced throughout the BGA as the "Air Experience Instructor Rating", later re-named the "Basic Instructor Rating". It should be added that the making of this rating a requirement, rather than a recommendation, for BGA Clubs, was in response to the CAA's changed view of such flights and their proposal that such flights, if non-instructional, should be conducted by a Glider Commercial License holder (no such thing) in a glider with a Public Transport C of A (no such thing).

The purpose of all this is to suggest the introduction of a similar rating for power flying. It should be simple and inexpensive to obtain, a 2- or 3-day course should be sufficient, and approval to run the courses and examine for the rating should be simple and inexpensive to acquire.

Chris Rollings
Tiger Airways

of windshear, which is not true. Reader Michael J Newman responded to point this out (Letters, December 2015) and he was right, as I shall endeavour to show.

An aircraft in flight exists in a body of air and its aerodynamic performance relates entirely to that mass of air. It matters not if that body of air is in motion. Let us consider flying above a solid deck of cloud in the sunshine. There is a wind blowing of 40kts from the North and our airspeed indicates 100kts. Our heading is due North (“into wind”) and we make a 30 degree banked turn to the left, adding a little power and holding enough back-pressure to maintain level flight. In this stable turn, the aircraft will go round and around until we run out of either fuel or patience, but it will always indicate the same airspeed regardless of its direction into (or out of) the prevailing wind. So, one can see that aerodynamically speaking, there is no difference between a downwind turn and an upwind one – and one certainly does not need to add “a safe margin of flying speed,” as Bunbury asserts.

The confusion on this topic arises from conflating an aircraft’s performance in relation to the ground, with its performance in relation to the air in which it flies. People stall their aircraft when making a downwind turn simply because they are using groundspeed as a reference instead of their ASI.

Let’s imagine a pilot is flying his PA-28 into a grass strip oriented 27/09, with a wind from the N of 20kts – a direct crosswind. However, our pilot has handled a 20kt crosswind before and he’s going for a landing on 09. He joins the left-hand downwind leg, having already slowed to 75kts as he is concerned that it is a rather short strip. He adjusts his heading in this leg so as to maintain a parallel track to the runway, but maybe it’s not quite enough to hold off that wind so he is getting closer to the airfield than he intended – and he is getting anxious about that strip length. He reaches the turning point for the base leg and he reduces power, puts out more flap and makes his turn (the “downwind turn”).

His attention is riveted to that threshold – he isn’t looking at the ASI – and he sees his turn to finals coming up too quickly. He feels too high and too fast (he isn’t too fast, of course. If

he looked at his ASI, he would see that the airspeed has not changed, the effect is because he is now assessing speed by looking at the passing ground) so he instinctively pulls back on the yoke and closes the throttle. His airspeed is now reducing through 60kts but he’s oblivious to this as his eyes are still on that threshold and he feels he is still racing across the ground. He continues to pull and is taken by surprise when the aircraft stalls. Can we now please put this old chestnut to bed?

Bob Gilchrist

Lewes, East Sussex

“An aircraft in flight exists in a body of air and its aerodynamic performance relates entirely to that mass of air. It matters not if that body of air is in motion.”

Dear Sir,

It was disappointing to find so many historical inaccuracies in Dr. John McAdam’s otherwise interesting article on the Airlander project in the April issue of *Aircraft Owner & Pilot*. Count Zeppelin’s first airship, LZ1, was designed by Dipl. Ing. Theodor Kober. LZ2 – and every subsequent Zeppelin – was designed by Dr Ludwig Dürr. Dr Hugo Eckener was not present at the first flight of LZ1 over Lake Constance in July 1900 but reported on a later flight for a Frankfurt newspaper. He then helped to publicize Count Zeppelin’s work and subsequently took charge of flight operations for the Zeppelin Company, having proved himself to be a ‘natural’ airship pilot. The British airships R100 and R101 were designed and built at the same time to a common performance specification.

R100 was constructed at Howden in

Yorkshire (not Cardington) and made its first flight on 16 December 1929. R101, built by the Royal Airship Works at Cardington, first flew on 14 October 1929 – two months before R100. It was a deliberate Government decision in 1924 to commission two prototype airships in order to evaluate the best features of both – and to avoid a Vickers monopoly.

R100 used largely conventional technology while R101 incorporated a number of innovative features. Both airships had their faults and neither developed sufficient lift to enable a commercially viable payload to be carried. At the time of R101’s twelfth and final flight in October 1930, R100 was about to be cut in half and lengthened with an extra gasbag to provide additional lift – the same modification that had already been made to R101. One of the reasons why R100 never flew again was because the framework was found to be badly corroded. Finally, there was no use of geodetic construction in R100; apart from the mesh wiring that transferred lifting forces from the gasbags to the main structure. Both airships were built using polygonal transverse rings linked by longitudinal girders and both were filled with hydrogen – not just R101.

[In later correspondence:] So many ‘myths and legends’ have grown up around the relative merits and failings of R100 and R101 that it’s important to try and put the record straight. Sadly, many of these myths have developed as a result of people reading *Slide Rule*, which is now widely regarded as an autobiographical novel. Much of what Nevil Shute wrote about R101 and the men who designed, built and flew her is simply untrue but once these ideas are in the public domain it’s very difficult to shift them. Part of the blame also rests with Barnes Wallis, who appears to have planted the idea in Shute’s mind that the R101 team was incompetent, despite the fact that it contained some of the brightest engineering brains of the day. I’ll be delighted to see the Airlander in the air but its future will depend on someone placing a firm order. At least No.1 Shed at Cardington has a large airship in it again!

Yours faithfully,

Paul Ross FRGS

Trustee, Airship Heritage Trust

The AOPA Simulator

50A Cambridge Street, London SW1V 4QQ (near Victoria Station).

The AOPA simulator was established in cooperation with Anthony Davis, a private pilot whose main job is as a presenter on Smooth Radio. Recently he flew the sim with Carol Vorderman, best known for Countdown and now aiming to fly her Diamond DA42 (pet name 'Mildred') around the world.



Anthony Davis is a broadcaster, private pilot and aviation journalist. He's often the first person on national television when aircraft incidents are reported. His analysis is calm, accurate and non-technical.

In addition to his media appearances Anthony finds time to promote GA with the London Flight Sim in the basement of the AOPA Pilot Store in London.

The immersive flight simulator is an affordable alternative to expensive full motion sims. It is built on the X-Plane 10 platform from Laminar Research which has the most realistic flight model, and coincidentally is also sold as a retail pack of six DVD's in the shop upstairs!

Anthony has flown all of the publicly accessible simulators in London and has created an unrivalled sensory experience with full HD graphics, vibrating aircraft seats and digital surround sound. He says, "People forget that light aircraft can be very bumpy, noisy and claustrophobic!"

The London Flight Sim can accurately recreate that experience, without even leaving the ground. "You can feel the turbulence going right through you - it's a lot of fun, and entirely safe!" he says.

Anthony has invested in a broad range of aircraft types to suit all pilots. Singles, twins and turboprops are all catered for. Piper Seneca or Archer, Cessna Caravan or 172 Skyhawk.

"The London Flight Sim can accurately recreate that [flying] experience, without even leaving the ground."

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specified, on type. After a couple of hours in the simulator she could do it with her eyes closed, and went to the interview filled with confidence. We were thrilled when she emailed us a week later to say she'd been offered the job!"

The advantage of a software based simulator is its versatility. If you've ever flown X-Plane on a home computer you may have thought 'wow this would be amazing on a big screen with a proper yoke and pedals'. Well, we took that concept several stages further to max out what can be done on a home system, utilising iPads to provide GPS and avionics input control, plus an instructor screen to adjust settings during flight such as weather, aircraft equipment failures etc.

Private pilot and TV personality Carol Vorderman accepted an invitation from Anthony to practice her attempt to become the ninth woman in history to complete a solo trip round the globe as part of her new television show on Channel 5.

Anthony installed an identical simulation of Carol's Diamond DA-42 Twinstar named 'Mildred', including the G1000 glass cockpit, to enable Carol to practice her complex routing and approaches in all weathers.

Her journey will see her travel through Europe, across Asia, north to the eastern-most point of Russia, across the Pacific Ocean, the United States and then finally she will make her way back through the icy north towards the United Kingdom.

The London Flight Sim welcomes everybody for an introduction to flying or a fun filled aerobatic afternoon. Available with instructor from just £60.00 per hour. Additional discounts are available for AOPA members. Please call 020 7834 1949 to make a booking or visit www.londonflightsim.co.uk

Book Reviews

The Monospar

*The Story of General Aircraft Ltd
of Hanworth*

By Arthur W J G Ord-Hume

ISBN: 978 1 84033 636 8
Stenlake Publishing Ltd : £16

This book saw daylight in 2013 so it is not 'hot off the press', but quite by chance I met it for the first time only a few weeks ago and decided that it deserves far more publicity than it has received. When the British aircraft industry was at its peak in producing a vast range of aircraft types, one company that showed exceptional initiative was General Aircraft Ltd, initially based at Croydon. However, as that was becoming London's airport in 1934 the owners chose greater freedom and flexibility by moving to the considerably smaller aerodrome at Hanworth.

In aviation's early years there were

constant disagreements about the relative virtues and shortcomings of monoplanes, biplanes and even triplanes, but by the mid-1920s the single wing was heading for the winning post. A Swiss mathematician and designer, Helmuth Stieger (often misspelt 'Steiger') was working through his idea of a wing that would be of much lighter weight than existing units with their structural redundancy. A primary feature was that instead of the usual two spars it would have only one, but equally importantly very strong compression struts would resist torsional loads.

When, in 1931, a wing to Stieger's design was fitted to a Fokker FVII airliner, the saving in weight was equivalent to the ability to carry three additional passengers and their luggage. Clearly, there could be a great future for this idea and, with many stages in between (all of which are explained in the book), General Aircraft Ltd was formed at Croydon in 1931 to take over the patented Monospar development.

The new company ventured into a broad range of activities, but before this the Stieger wing was put to work on a light twin-engine low-wing monoplane built by the Gloster Aircraft Company

at Brockworth. Known as the ST-3, this little three-seater managed a top speed of 110mph on a pair of 50hp Salmson radials but, more unusually, despite its almost pointed wing tips, it had very tame stalling characteristics.

For several years a series of light twins kept the production line occupied. All carried the 'ST' prefix and most were powered by high-revving Pobjoy radials. Unfortunately, although there was plenty of technical expertise, there was no equivalent knowledge of the management/business side, with no plan or pricing structure, so at the start the company returned a loss. A fresh team put paid to that and, for a while, the GAL name blossomed until the effects of the depression in 1936. There were many unsold aeroplanes at the factory and an appeal was made for help; fortunately Hawker Aircraft had a problem which was quite the reverse of that affecting the Hanworth team. They had a capacity shortage, for the threat of war had led to an urgent demand to produce the first batch of 600 Hurricanes, with 89 half-built Fury biplane fighters to be completed. GAL took on the latter task which was of strong benefit to both organisations.

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General Aircraft was involved in one of the widest ranges of work of any aeroplane manufacturer. The home-brewed Monospar ST-25 light twin with its pair of Pobjoy radial engines, which appeared in two versions - the single finned Jubilee and the twin-tailed Universal - was the main occupant of the early production line. In 1936 the Hanworth factory produced the unsuccessful ST-18 Croydon ten-seater airliner, the fate of which is well worth reading. One of the earliest British light aeroplanes to have a tricycle undercarriage was the GA Cygnet which showed positive signs of popularity for private owners, but its future was cut short by the start of WWII. This 'new' wheel layout was used on other GAL designs, including a modified ST-25 Jubilee and the sole Cagnet Service trainer. Among the great variety of tasks undertaken were the conversion of 125 Hawker Hind light bombers to dual-control advanced trainers, the construction of Fairey Firefly fleet fighters, repairs to Spitfires, the design and construction of the GAL 41 pressure cabin research aircrafts, design and production of the GAL 48 Hotspur military training glider and the GAL 49 Hamilcar heavy assault glider, 344 of which were made, including a small number of powered examples using Bristol Mercury engines. Then there were the small tailless gliders designed and built to a military specification and even conversion of Mosquitos to an almost unknown mark 39, a rather ugly four-seater used in small numbers by the Royal Navy as target tugs for training ships' anti-aircraft gunners.

I could go on but, because of such a wide range of activities by a relatively small and little known company, I have used more space than usual for a review. The firm's last product was the enormous General Aircraft Universal military freighter which, following a merger between the two organisations, became the Blackburn Beverley used successfully by the Royal Air Force.

I was intrigued throughout my reading of this book and I learned a lot. I hope that you, too, will do so.

David Ogilvy

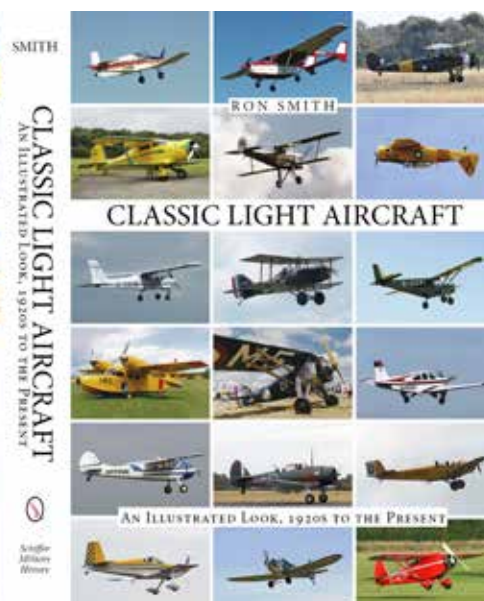
Classic Light Aircraft

By Ron Smith

ISBN 978-0-7643-4896-9.

Published by Schiffer Publishing at £29.50.

Hardback, 415 pp, with 849 mainly colour photographs.



The author, Ron Smith, is a prolific writer of books on general aviation, covering both historical aspects and specific aircraft types. His previous books have demonstrated a useful knack of being able to cover a lot of ground with the minimum of effort, providing just enough information to keep the appetite whetted and no more. This quite hefty volume continues in the same vein, and so allows for over 800 aircraft types and manufacturers to be represented. The former covers a range of fixed wing aircraft from mass-produced to lesser known but important production and homebuilt examples, typically built in reasonable numbers and likely to be seen at the local airfield, as well as a selection of older aircraft that continue to be flown and cherished.

The number of photographs is extraordinary, considering most of them were taken by the author. These are of excellent quality and, apart from one or

two, in colour, mainly two to a page. I suspect most readers will check if any aircraft they have flown is pictured; I could not resist myself, and sure enough, there was a picture of a Piper Cub I spent many happy hours in, but, from the colour scheme, taken long before I became part-owner. From this, it was evident that Ron had started building his library of photographs a very long time ago.

As with his previous books, Ron demonstrates an ability to research a topic to a painstaking degree, leading to an unparalleled breadth of knowledge. The aircraft and manufacturers listed in the index provides ample demonstration – there cannot be many folk around in general aviation who could profess complete familiarity with all those listed. This is a wonderful book for anyone who enjoys and takes an interest in light aircraft, I thoroughly recommend it.

George Done

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G-JAKI, 1995 Mooney M20R



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Tiger Club settles into life at Pent Farm

Last year the Tiger Club moved to Pent Farm from Headcorn Airfield after a long-running dispute with the landlord that has ended up in Court.

It started in February 2011 when during an air test after maintenance on the Club's flagship Tiger Moth (G-ACDC) the propeller hub (which had been incorrectly fitted) came loose and damaged the crankshaft beyond repair. The replacement engine provided by Headcorn's engineers was troublesome and the dispute escalated, to the point that a minor issue with the Club's CAP 10 led to it being out of action for more than three months.



In September 2013 the Tiger Club withheld payments to the airfield, which then seized the Club's aircraft and locked them away for three months, putting the club out of business. Eventually mediation resulted in an agreement which allowed the Club to resume operations and the dispute went to arbitration. In the meantime the situation at the airfield didn't improve and a rebuild of the club's second Tiger Moth G-ASKP suffered considerable delay and the work was moved elsewhere.

In April 2014 agents of the airfield management entered the Club's premises and disconnected all the security cameras and surveillance equipment, having first cut off the power to prevent their identification. The following day an airfield security person came uninvited into the clubhouse and announced his intention to escort the current chairman (Richard Brinklow) from the airfield.

The Club said in a press release in early 2015 that despite several of



The Tiger Club's CAP 10 at Pent Farm, March 2016.

these issues being still ongoing in the courts the airfield gave the Tiger Club a deadline of April 9 after which time it would not be allowed to operate at Headcorn. It claimed that the airfield owners were keen to "replace much of the established activities with a commercial enterprise that doesn't want to operate alongside the Tiger Club." So it stated, "To ensure the safety of our fleet the club has been forced to disperse the aircraft and keep them at a number of locations in the south east."

"It would seem that the airfield think that if they fragment and/or force the Tiger Club out of business then they will not have to repay the club damages awarded to it in the courts. The behaviour of the owners has been appalling, doing everything in its power to bring financial ruin to the Club and to demoralise the membership with continual aggravation and lies about insolvent trading.

"The directors are determined that the

club should not be forced out of business, but that it will regroup and rise again like a Phoenix out of the ashes."

This it has done at Pent Farm, just inland from Hythe/Folkestone.

"Tigers have given so much pleasure to so many over the years, and we will endeavour to ensure that members are able to maintain currency on our tailwheel aircraft," said the Club.


Aircraft Owner & Pilot made a brief visit to Pent Farm airfield in March 2016 and found the Club active and thriving with enthusiastic members. Headcorn remains a popular destination for many pilots especially from airfields in the south east but it may be worth considering asking if you can fly in to Pent Farm and even do some tailwheel flying. The Club has some fantastic aircraft and very experienced pilots. It is a great shame that the problems at Headcorn got so bad but this cloud seems to have a silver lining.

The Tiger Club

home of sport aviation in the UK

[G-ACDC](#)[G-ASKP](#)

G-ACDC - The third Tiger Moth built



G-ACDC is over 80 years old and the Tiger Club has owned this biplane since the fifties. CDC as it is known to everyone, has had a busy and eventful life and continues to do the work it was built for, that of teaching people to fly.

G-ACDC (Construction No. 3177) is the third DH82a Tiger Moth built and the second oldest still flying. It was registered on 6th February 1933 and was one of 10 allocated for use by the De Havilland School at Hatfield where it remained until November 1941. There is an older DH82 in Sweden but this is not the same aircraft as was developed for the RAF.

CDC was officially impressed into the R.A.F. as BB726 on 30th October 1940 and went first to No. 1 EFTS at Hatfield until November 1941 then moving onto No. 28 EFTS at Wolverhampton. It served out the rest of the war there, being retired to 9 MU at nearby Cosford on 21st July 1945. From Cosford it was re-issued to RAF Dyce on 9th June 1952 for the summer season and was again returned to store at 20 MU Aston Down in November 1952.

The Tiger Club still has CDC's first post-war logbook. This includes a card showing it was Lot number 79 at a R.A.F. auction in 1953. In preparation for auction it was brought up to flying standard at R.A.F. Aston Down and signed off there in September 1953. CDC was purchased by A.J. Whittemore (Aeradio) Ltd who had it flown to Croydon where it went into storage. The civilian registration G-ACDC was officially restored on 4th December 1953. In July 1955 it was sold to locally based Continental Aircraft Services and a short while later moved on to Rollason Aircraft & Engines Ltd at Croydon.

Rollasons converted CDC to civilian standards and at this time it had accumulated 4980 hours. During this overhaul the Tiger was completely stripped down and most of the structure was found to be sound though a new starboard upper wing was required and the anti-spin strakes, fitted by the military, were removed. CDC was then repainted in the old De

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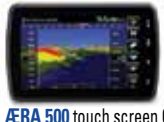


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