If a new coding can be created for avgas, tax will still have to rise by about 2p a litre, which will be damaging but manageable. Martin Robinson says: ‘I’m afraid that’s the best we can hope for. It doesn’t help us compete against the likes of the USA, South Africa, Australia and elsewhere, but it won’t put people out of business overnight. “There are a host of difficulties here, not the least of which is the fact that the Treasury does not want to be seen to be supporting a leaded fuel. But there is a real safety aspect which the Treasury also appreciates. If avgas is £1.70 a litre and leaded motor fuel is 80p, motor fuel will be used in aircraft, with potentially catastrophic consequences.”

GA’s fuel requirements are tiny – it uses one quarter of the fuel that evaporates from car tanks – but it’s a wide open easy target for the EC. It is particularly galling that no elected politician, British or European, can do anything to stop it. The fundamental problem is that a tax hike that must have been.

Avgas at £1.70? Treasury seeks a way out

The potential disaster arose out of the blue at the end of last year when the Treasury applied to the EC for a tax ‘derogation’ – permission to continue to levy tax on avgas at the same rate it’s been pitched at for 20 years. Back in the 1980s AOPA and GAMTA campaigned for a reduction in avgas tax, in a hopelessly uncompetitive position not just in Europe but across the world, and continues to export or destroy its flight training industry as it did its aviation manufacturing industry in the past. A British youth who aspires.
be an airline pilot by the integrated ATPL route is already looking at a bill to train 100 just to be able to apply to an airline, with no guarantee of a job. Elsewhere in the world it might cost less than half that, or be paid by an airline sponsor. And when electricians or plumbers can do nothing about it, even the most ardent supporters of the European Union must start questioning value.

Several hundred AOPA members wrote to their MPs as a result of a request by email and in the February issue of General Aviation, and most have received a copy of a form letter sent to the MPs by Treasury Minister John Healey. The letter holds out only vague hope that the situation could be saved. While saying twice that the new tax level applied to “private pleasure flying” it made no stab at defining who would pay and who wouldn’t, how the tax would be applied and by what mechanism tax on avtur would be differentially applied to airlines and GA.

Most curiously, Mr Healey’s letter says: “I should also explain that, far from representing a loss of tax sovereignty, more generally the Energy Products Directive (under which the UK applied for permission to levy a reduced tax rate and was ordered to go away and raise taxes. But this apparently does not represent a loss of tax sovereignty. Tax harmonisation reduces distortions in the market – yet it is increasing taxes in the UK, where flight training already costs twice as much, in some European countries and up to three times as much as in the United States. And the EDP protects the UK’s competitiveness while raising the price of avgas to £1.70 a litre, compared to as little as 41p a litre for our competitors in Florida. Is it any wonder that Britons who want to pilots take their money and their business elsewhere?”

The UK Treasury knows the truth full well. In its application to the EC for a derogation it said in part: “The United Kingdom further explains the negative effects on both the private pleasure-flying sector and many small businesses associated with it. Furthermore, it would increase the cost of training which would greatly depend on pilots to train in the United States. In addition, removing the derogation would raise safety issues if users were tempted to put unleaded petrol rather than avgas to £1.70 a litre, compared to as little as 41p a litre for our competitors in Florida. Is it any wonder that Britons who want to pilots take their money and their business elsewhere?”

Mr Healey’s letter concludes with a promise to work with general aviation to “explore the options for the most appropriate implementation”. It’s important to stress that the Treasury carries no blame here, apart from perhaps for Mr Healey’s convoluted attempts to put the best gloss on the situation. There may be political advantages to pretending you’re not being ordered around by the EC, but they look pretty lame when tested out for those who have to pick up the tab. But the Treasury tried hard to have the derogation continued, and it sees the dangers for an already-beleaguered industry in applying the EC’s diktat. In discussions with Treasury officials, Martin Robinson has been heartened by the willingness to seek a way forward that might help to protect the GA industry. They have been proactive in suggesting possible mitigation. Martin says: “It’s vital for them to see how we have listened to our case and have apparently been prepared to act to help us.”

Chief executive’s diary:

**Anybody here been shafted and speaks English?**

Meetings, meetings. Counting them up, I went to 70 meetings this year. In the last magazine came out. I was at an EASA meeting in Cologne on January 23rd, when we again debated the persistent problems with EASA’s financing. The EASA Advisory Body does not agree with proposals made in an independent report on how the fees and charges should be structured, and it’s becoming clear the Agency has failed to invest in suitable IT equipment.

On the 25th I was the guest of NATS at their annual dinner. NATS say they want to get closer to general aviation, and they invited me to the inaugural NATS – GA forum at Swanwick on the 29th. It’s good to see they’re taking an interest in us and have appointed Paul Loudon, their customer services director, as GA’s focal point. We’re going to have three meetings a year. You’ll never guess what we discussed. Mode-S. I think they call it “a frank exchange of views”.

On the 30th Tom Horne, who’s editor of AOPA Pilot, came over on a fact-finding mission. User fees are the only topic of conversation in the States, and he was here to see how they work in Europe. As Cessna’s Jack Feltom says, they are one of the reasons European GA is where it is, while American GA is where it is. Don’t do it, guys.

On February 1st we had a meeting of the new CAA Working Group that’s come out of one of their airspace initiatives, the
Europe gets serious on GA

The European Commission’s long-awaited paper on general aviation in Europe has finally been published, and marks a promising start on the long road to creating a positive environment for the industry across the continent.

The paper is the result of a meeting in Brussels a year ago between European Transport Commissioner Daniel Calleja and four AOPA staffers – UK CEO Martin Robinson, AOPA president Phil Boyer, German managing director Dr Michael Erb and AOPA secretary John Sheehan – at which general aviation in Europe was contrasted unfavourably with the industry in the United States. At that meeting Martin Robinson pointed out that European commissioners going back to Neil Kinnock had disclaimed responsibility for GA when tackled by AOPA, but Daniel Calleja was clearly open to new ideas that might help improve the industry’s prospects. Robinson suggested that a start be made by making a study of GA in Europe in order to establish baseline data. Calleja agreed to dedicate some resources to this and directed one of his own staffers, Martin Robinson pointed out that European industry’s prospects. Robinson suggested that European Sky, and on the 21st we had a meeting of AOPA’s Members Working Group, a worthy body with a lot of good, solid ideas for improving your Association. A separate report of that also appears in this section. Afterwards I gave the Robinson Roadshow to a slightly smaller crowd than usual, but they were no less appreciative for that.

On March 7th I went to Brussels for a meeting with the European Business Aircraft Association to get our stories straight ahead of the meeting to launch the EC’s GA paper the following day. We have a good relationship with Brian Humphreys and the EBAA, and we traded information and adopt a common approach where it suits us.

We had the EC’s paper on March 8th, as set out in a separate report here. I did a presentation on behalf of IAOA, and we have since had some positive words from Transport Commissioner Daniel Calleja about the impact of the GA paper on Europe. After the EC event I had a meeting with John Sheehan, general secretary of IAOA, on matters coming out of ICAO.

On March 13th we had the GA Consultative Committee meeting, again covering a wide range of topics. An illustration of the difficulty we all have in keeping track of the skillets of new regulatory proposals coming in every day from all over the world was the fact that the CAA hadn’t heard that ICAO intends to make the carriage of ELTs compulsory for aircraft under VFR for 2009, and PPLs will be unacceptable. If the CAA with all their resources can’t keep track of everything, how much more difficult is it for AOPA?

That evening I did the Robinson Roadshow at West London Aero Club at White Waltham, and we got a large and enthusiastic turnout – it was nice to see the PFA chairman Roger Hopkinson there. My thanks to Chris Royle who arranged it. Then on the 15th we had the second meeting of the LAAGS – Flying Training. The question remains the same – what’s hiding under the blanket? We’ll have to sit back and see what’s proposed. So as the magazine goes to press I’m looking at meetings of the SES High Level Group and the ICB in Brussels, the DT in London, the CAA at Gatwick – so guess what? News of more meetings next time!

Martin Robinson

The contrast between Europe and America, which was what first caught Daniel Calleja’s attention, was pointed out starkly by Martin Robinson in his address. AOPA estimates the value of GA to the US economy as $103 billion ($54 billion); in the UK it is around £1.4 billion – and the UK is still one of Europe’s most active GA nations. At best, Europe accounts for perhaps 20 or 30 percent of the US value. There was, he said, clearly room for growth, and with more than 11,000 jobs in the UK dependent on general aviation, the potential across Europe was massive. He warned that if GA regulations were mooted, there must be a cost-benefit analysis. Europe has yet to adopt the “better regulation” ethos of the UK, where regulation can be challenged if it is not for a demonstrable benefit, and the EC must embrace the principles of regulation testing if we are not to end up with bad law. Risk assessment must be a foundation of rulemaking, and industry consultation must be more than just a process to be got through. Regulations must be simple and user-friendly, consistently and fairly applied, and regulators must be accountable. The process has to be joined up – the recent EC decision on fuel tax, he said, had been taken in isolation by people who did not consider themselves accountable for the real-world results. Any regulation had to be targeted in order to minimise unwanted side-effects. Above all, GA had to be looked on as an opportunity and its real value had to be recognised. As former FAA Administrator James Busey pointed out, even the most treasured of things – trained future airline pilots – it would be essential.

Robinson described Ratajczyk’s paper as “a good start” which was comprehensive and had been well-researched, but the paper itself then made statistics on GA in much of Europe. It estimates there are 90,000 pilots engaged in “private powered flying” in Europe using 20,000 aircraft and flying between three and four million hours a year. There are 30,000 microlight pilots, about 90,000 glider pilots and 22,000 gliders, 115,000 hang glider and paraglider pilots, 120,000 parachutists, and

then take questions, and it’s usually well received. There was a good crowd at Gloucester, and I enjoyed the experience. On the 15th we had the first meeting of the Light Aviation Aerodrome Study Group – Flying Training. This is a difficult one to call because, while there are obvious attractive advantages to some of what’s being discussed, we’re being asked to sign up to a pig in a poke. There are too many questions that are answered with “Oh, we’ll sort that out later.” Maybe I’m getting cynical, but I want to see apples and pastry when I’m promised apple pie. And when somebody says we’re talking about the impact of the CAA on the changeover from the JAA to EASA, which is now complete; there are still some orphan NPIs out there which need to be gathered in, but otherwise the JAA looks like a fishy. On the 3rd I was in Leicester for a meeting of AOPA’s Members Working Group, a worthy body with a lot of good, solid ideas for improving your Association. A separate report of that also appears in this section. Afterwards I gave the Robinson Roadshow to a slightly smaller crowd than usual, but they were no less appreciative for that.

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European Community, and the subject was discussed at a conference in Brussels in March at which Martin Robinson was one of the speakers. As usual with the EC, time allowed for feedback was woefully short, and all comments had to be in by April 1st.

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Martin Robinson
Members push AOPA mentoring scheme

A proposal to create an ambitious mentoring scheme for private pilots has been put forward by the AOPA Members Working Group and is being worked on with a view to improving skills in such areas as instrument flying and navigation.

The idea, first raised at a meeting of the group at White Waltham last year, has been fleshed out and was discussed again at a meeting at Leicester early in March. While it would not yet be useful to set out all the details here – such schemes must always be fleshed out and discussed in such a way that they can get bogged down debating detail that doesn’t last the course – AOPA’s chief executive Martin Robinson says he supports the proposal, which he described as sensible, practical and sustainable.

The prime movers behind the scheme are members Timothy Nathan and Steve Copeland, both high-time instrument rated pilots. The group believes the scheme can be constructed in such a way that it would require no regulatory control, either at the UK or European level. Group members are now working on details, and a draft proposal will be published here when they’re ready.

Apart from Timothy Nathan and Steve Copeland, members at the meeting included Mike Cross, Pat Malone, John Yan, Mark Stock and Chris Royle, who chairs the group. AOPA representatives were Martin Robinson, chairman George Done, and Mandy Nelson, who runs the office part-time.

The Leicester meeting covered a lot of ground. Mark Stock, Head of Finance Operations at the London Stock Exchange, is identifying archive material from the magazine with a view to having it uploaded onto the site. Much time was devoted to discussing the possible answer session with members over a webcam. A few glitches remain to be sorted out.

Launch of the forum has been delayed by a spam attack, but it’s almost ready to go. At the same time, Peter Harris has been revamping the main AOPA site www.aopa.co.uk. The two now need to be linked, and the site needs to be populated with changing data as well as links to other relevant sites. Neil Monks, the former CAA man who now works part-time in the AOPA offices, is identifying archive material from the magazine with a view to having it uploaded onto the site.

Martin Robinson has been planning for some time to do a regular face-to-face question and answer session with members over a webcam. A few glitches remain to be sorted out.

So much time was devoted to discussing the mentoring scheme. Chairman George Done said that while there were clearly obstacles, none of them should be insurmountable. There was also likely to be opposition, such as there had been when AOPA created and pushed through the IMC rating. Over the years, those who said the rating would merely encourage pilots to fly in weather conditions beyond their abilities had been proved wrong, and many
lives had been saved. The scheme is to be discussed at the AOPA Instructor Committee and the Corporate Members Group. Discussions also ranged over the Instrument Ruling – Steve Copeland is to represent AOPA on a CAA study group looking at possible changes to the IR ahead of European action – and Mode-S, where Martin Robinson said concessions were being sought, including a very long transition period, altitude limits, and the agreement of the CAA not to charge vast amounts of money for permission to do what we’re being ordered to do. (See separate story in this issue).

Martin Robinson talked the meeting through the Implementing Rules on Maintenance, which is rapidly turning into another EASA pantomime. There seems to be little genuine will at EASA to resolve the problems, and the level of seriousness with which the Agency is treating the issue is illustrated by the fact that the study group looking at business jet maintenance is headed by an expert from the British Gilding Association. AOPA has asked EASA to provide a regulatory assessment showing where there will be a measured improvement in safety as a result of IR(M) but they have been unable to do so – it’s a prime example of regulation for regulation’s sake.

Martin also spoke of a meeting at the Treasury the previous week to discuss the EC’s diklat on aviation fuel taxes. If Europe is indulged to the letter, the price of avgas will go up to £1.70 a litre and avtur will roughly double. While keen to hold down the cost increases, which it recognises would have a catastrophic effect on an industry that is already hopelessly uncompetitive against foreign competition, the government does not want to be seen to be supporting an unleaded fuel. The industry is trying to come up with a way of taking avgas out of its current tax coding and give it a separate identity as a specialist fuel, but we must first prove it is technically different from leaded motor fuel. The Treasury would then be able to set the duty on avgas at the EU minimum rate, which would mean a 1.5p or 2p rise. (See separate fuel story in this issue).

**America warned against aping Europe’s ways**

**CESNA CHIEF EXECUTIVE JACK PELTON HAS USED GENERAL AVIATION IN EUROPE AS A WARNING TO AMERICA ABOUT HOW BAD THINGS CAN GET WHEN BUREAUCRACY RUNS THE SHOW.**

Pelton has attacked the FAA’s proposal to impose user fees as a “bailout” for the airlines. User fees, he says, are “the major obstacle to continued success” in US GA. The example of Europe should deter the FAA from going down that road altogether, he suggests.

“After an intense lobbying campaign by the airlines, the FAA has proposed to radically change the way it is funded,” Pelton says. “Instead of the stable, non-bureaucratic gas tax, the FAA is proposing to switch to user fees – the same method retarding the natural free-market growth in Europe we might otherwise expect to see given the dynamics of that economy. In Europe, the airlines rule the skies, shutting out other air travel alternatives.”

Pelton painted a picture of declining general aviation growth, stifled overall domestic economic activity and reduced US economic competition internationally resulting from user fees. He goes on: “What the FAA is proposing is to create a new bureaucracy to collect user fees, which they admit will bring in less than they get now, and would result in an unstable funding stream dependant on continued growth of the system.”

“Instead of growing to meet the global demand and retaining our national leadership in general aviation, we will retreat and ultimately lose out to Japan, to Brazil, to Canada.”

But not to Europe.

**EASA takes on JAR-FCL**

**MANY OF YOU WILL KNOW BY NOW THAT THE JAR-OPS AND JAR-FCL WORK OF THE JAA was handed over to the European Aviation Safety Agency (EASA) on January 1st this year. EASA is an agency of the EU, based in Cologne, Germany, and it has set up a number of working groups to handle the task of transferring JAR-OPS and JAR-FCL to EASA OPS and EASA FCL.**

When the JAA first started its work on the JARs, the intention was they would become a Regulation. However, the structure of the JAA did not make this possible, and we ended up with Requirements. As such, these were not binding and sadly, although many of the JAA member states had been involved in formulating the JARs, every country tended to implement them in their own way. This has led to a disappointing period which has given rise to a lot of problems and complaints.

Martin also spoke of the work that has come under the EU we will have a Regulation, and both EASA OPS and FCL will be included in the EU Regulation 1592 which can be found on the EASA website www.easa.europa.eu/

A core group was formed by EASA in August 2006 to oversee the licensing transfer, and four subgroups were set up to undertake the drafting work:

- Subgroup for transfer of JARs.
- Subgroup for non-JAR aircraft (gliders, airships and balloons).
- Subgroup for medical.
- Subgroup for authorities.

I was invited to join the core group, and I chose to sit on the ‘transfer of JARs’ subgroup representing the European Region of IAA/G.

Basically, the actual JARs as we knew them will not change, although they become Implementing Rules (IRs) i.e., the Regulation, and the detail will be in the AMCs (Acceptable Means of Compliance). It is hoped that the result will be a more easily understood document, with none of the complex cross-referencing we have at present.

The significance of having Implementing Rules means that as this is a Regulation, there will be no more decisions left for National Authorities (CAAs) to take. The decisions will all come from EASA. Hence the expression “at the discretion of the Authority” will disappear from the document.

We hope to have the drafting work completed by July this year, but that is just the beginning of the process of becoming European Law. The date of July 2008 has been mentioned, but it will all depend upon the EU legal process and whether the document is subject to a ‘second reading’.

— Pamela Campbell

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**Do you...**

- have an airbag in your car?
- have a smoke alarm in your home?
- carry fire jackets when flying over water?
- have a McMurdo Personal Location Beacon?

No? So how would the authorities find you if you urgently needed their assistance?

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But not to Europe.
Mode-S: don’t panic, there’s time

There is no more vexed debate in general aviation today than that of Mode-S transponders. It’s one of the longest-running and most intractable problems the industry has faced. And AOPA’s chief mandarin for AOPA, Robinson says Mode-S was being hotly debated when he first started working for AOPA 17 years ago. Since then the debate has barely moved on, with all sides shifting only marginally from entrenched positions. While CAA chairman Sir Roy McNulty told the GA Conference in November that Mode-S was not a done deal, there have been signs that not all executives in the Authority share his viewpoint. Despite appeals to reason and pleas for alternatives, there are certainly some in the CAA who see Mode-S as the only solution.

AOPA’s position has also changed little down the years; Mode-S is the wrong solution to the perceived problem of aircraft separation, it is technologically incapable of suitting all GA aircraft, it confines no benefits whatsoever on those who would be forced to pay for it, and it will have to be junked sooner rather than later when ADS-B or similar systems become available.

There are signs that those people at the CAA’s Directorate of Airspace Policy who agree with AOPA’s position are making their opposition felt – enough, at least, to introduce flexibility to the implementation of Mode-S. Original deadlines will pass unmet, exemptions will be made for many aircraft, and for places where Mode-S will be required, GA will be given five years to make the change.

But however flexible the CAA ends up being, it’s difficult to foresee a future in which much of GA does not have to pass through a Mode-S phase on its way to better new systems.

Martin Robinson says: “There are particular aircraft where aerial positioning is an issue because of signal shielding, others in which wiring issues and even the placement of the transponder itself is problematic. After two hours’ work, a minor modification becomes a major modification and the fees rise exponentially. This is one of the major issues we have with the CAA – they must ameliorate their fees with regard to Mode-S.”

The CAA was originally demanding that everything that flies, from balloons and gliders to homebuilts and Group A aircraft, be equipped with Mode-S transponders. But as it became clear that creating a self-contained transponder for low-generating or non-electrical aircraft was easier said than done, a series of messy compromises was mooted. It now seems that many aircraft, like gliders, and microlights that remain in the circuit will be exempt from the Mode-S requirement. AOPA’s calls for a concession of at least five years during which the use of Mode-C transponders will be allowed in Class D airspace is being sympathetically considered by the CAA. AOPA accepts that Mode-A will be discontinued, but upgrading from Mode-A to Mode-C can be done for about £200.

AOPA moves to soften the blows

AOPA is concluding an arrangement with Adams Aviation at Biggin Hill to provide members with Mode-S transponders at a substantial discount.

In addition, bearing in mind that Mode-A transponders are to be phased out while Mode-C transponders are likely to be accepted in Class D airspace for at least five more years, AOPA has also negotiated a discount on the (roughly) £1,200 cost of upgrading a Mode-A set aviation today.

The cheapest Mode-S unit available at the moment is the new Garmin GTX 328, a newly-launched unit which replaces a special number of the GTX 330 which has been so successful in the USA despite the fact that there is no looming mandate there. American GA pilots have been falling over themselves to fit Mode-S because it works with TIS, or traffic information services, allowing them to pick up information on nearby aircraft, weather information and much more via their transponders.

In Europe the authorities have no intention of providing any such services, so a Mode-S box is no use to the buyer except as a deadweight to comply with a regulation. The Garmin 330 costs upwards of £5,000, but the 328 has a list price of £2,995, or about £1,500. It is the result of an initiative by Garmin’s Steve Gubbins, who proposed a European model to Garmin in the US last year.

The five-year changeover, AOPA argues, is required for manufacturers to seriously address the technical and commercial difficulties surrounding the provision of lightweight, low-cost Mode-S units. During that time, not only will technology improve but prices should continue to decrease. AOPA also maintains that in Class G airspace below 6,000 feet there is no need for a mandate for Mode-S and that, in fact, position is being sympathetically considered by some in the CAA. Robinson says: “In fact there would be so many Mode-S returns that ATC will be forced to filter them out outside controlled airspace anyway, and requiring expenditure on Mode-S transponders that nobody will ever see is particularly perverse. Two GA aircraft with Mode-S installed are no safer than two unequipped aircraft, because unless they are receiving a radio service they will have no information about each other.”

The CAA is aware that it faces difficulties in satisfying the government’s requirements when it comes to Mode-S. Under current “better regulation” guidelines, a regulatory impact assessment is required to run a cost-benefit analysis with any mandate. With Mode-S, the cost to GA is £30 million, the benefit is diddly-squat. The Authority will be launching a second round of consultation on Mode-S in the near future, and AOPA believes they will incorporate the five-year transition and other concessions in their planning, including specifying the aircraft which will be exempt from the requirements.

Whatever you do about Mode-S, don’t panic. The deadlines we were originally given have not been adhered to, and there’s ample time to weigh your options. There is much confusion on this issue, even at the CAA, but equipping with Mode-S is certainly not required for VFR aircraft right now. The consultation process on the requirement for Mode-S for VFR traffic has not even been completed.

It was originally intended that after March 2003 all new IFR traffic was to be equipped with a Mode-S transponder, and they’re not very happy. So in the 328 we’ve stripped out all the 330 features like extended squitter, TIS functions, enhanced surveillance and effectively reduced the classification from Class 1 to Class 2 Level 25.” The 328 does not have the wattage required to operate legally above FL170, but is more than enough for GA aircraft in the ten European states which are moving towards a Mode-S mandate.

Although it’s impossible to know before the Authority decides on exemptions, Garman’s research indicates that some 23,000 GA aircraft will be affected by the Mode-S mandate in Europe, of which 9,000 are in the UK. Adams Aviation and The Flying Shop have combined to introduce some Mode-S hotlines to Mode-S, on 01959 579888 or email mode-s@flyingshop.com with any query on this vast and complex subject. There’s a special number and email for fleet operators – 01959 579880 or mode-s@adamsaviation.com.
The way of the future?

Elsewhere in the world a different system, ADS-B, is being looked on as a solution to the problems the CAA says must be solved by Mode-S. ADS-B (Automatic Dependent Surveillance – Broadcast) allows aircraft to communicate with each other as well as with ground stations, and can display the relative positions of all equipped aircraft to each other. In addition, through a bolt-on called “extended squitter” it can uplink data on everything from weather to airfield information to Notams to the ante-post prices at Lingfield.

ADS-B shows up radar for what it is – pre-war technology that has been overtaken by progress. ADS-B does not rely on a mighty ground station flinging a radar beam in all directions and deriving information from whatever it bounces off. It is simply a box that talks to other boxes. There is no requirement to tune out clutter. Air traffic controllers can access far more information via ADS-B without the need for radio communication, with less requirement for additional radio frequencies. And of course, it is an information superhighway for data reaching the pilot.

Importantly, ADS-B is cheaper than primary radar. A radar ground station can cost tens of millions of dollars, whereas an ADS-B ground station currently costs about $250,000. Even taking account of the fact that you need more ADS-B stations to provide data uplinks, the infrastructure costs are far less. Vested interests who make and sell radar systems are not keen on ADS-B.

In the United States, the airlines operate on Mode-S while general aviation is likely to choose ADS-B as its preferred option. As radar can also receive an ADS-B signal, the two systems run in parallel and air traffic controllers are unaware of whether they are receiving an ADS-B signal or a Mode-S return – the information is the same. The CAA says ADS-B is not robust enough in the core area of Europe, despite the fact that it has been in operation in Alaska for almost 12 years and many glitches have been ironed out. It is seen as the way of the future in America, in Australia, and increasingly in other parts of the world. At the CAA Conference on General Aviation in November, a CAA spokesman said authorities elsewhere in the world didn’t always get things right, so the fact that they were moving towards ADS-B was of little consequence. ADS-B equipment in the USA is based on a universal access transceiver (UAT) which rebroadcasts a GPS signal, and until Europe gets its own Galileo satellite network the authorities here will not give their blessing to a system that relies on satellites operated by the American military.

Furthermore, the military in Britain will not allow old-fashioned radar to be taken out of use for reasons of security. It is not satisfied that satellites (especially someone else’s) are robust enough to withstand solar flares, Chinese missiles or other troublesome phenomena – including the GPS jamming systems that are currently being manufactured clandestinely to confuse road-pricing systems in the UK.

Bristol, contacted Martin Robinson in February pointing out that if the law were to be applied to the letter, shooting an ILS into Bristol would be illegal after March 31st this year unless the aircraft were Mode-S equipped. His group, he said, was being inundated with information from Mode-S installers claiming it was required now.

Martin Robinson replied that there was no doubt the Mode-S mandate represented the biggest windfall for the avionics companies since FM immunity, and that he had been forced to contact some installers to point out that their claims were misleading. He said it should be possible to continue flying in Bristol’s Class D airspace for at least five years with Mode-C. Same goes for Class B elsewhere. As a result of Mr Wallace’s questions to AOPA the CAA has contacted Bristol to clarify the situation, and if anyone finds themselves in a similar situation, please let AOPA know.

Beginners start here

A ‘primary radar’ is the great big rotating dish that fires out a radio beam and collects the returns that bounce off any aircraft, displaying them as blips on a screen. It’s pre-war technology and it can easily get cluttered up with flocks of birds or weather phenomena, so the advent of the transponder (or SSR – secondary surveillance radar) was a Great Leap Forward.

Mode-C operates a Mode-C equipped Tobago out of circumstances. Consultation to take account of changing circumstances. Will be rewritten after the upcoming round of consultation to take account of changing circumstances.

A Mode-A transponder in an aircraft picks up the primary radar beam and bounces it back encoded with a four-digit number entered into the transponder by the pilot. That number, the ‘squawk’, appears next to the blip on the radar screen. A Mode-C transponder also encodes the aircraft’s altitude into the return signal, so ATC knows what level you’re flying at. This means the controller no longer simply assumes a return is underneath controlled airspace, he (or she) can actually see that it is (or isn’t). At the risk of sounding Pythonesque, there is NO Mode-B!

Mode-A transponder can be turned into a Mode-C transponder with the expenditure of about £200, but a Mode-S transponder is a different kettle of fish. It works on a different frequency (the powers-that-be say that they’ve run out of codes, there being only 4,096 available, so they need Mode-S because instead of a code the aircraft’s registration appears on the screen.) You cannot turn a Mode-C into a Mode-S; you have to buy a new one. Mode-S can be picked up by the collision avoidance systems (TCAS) in sophisticated aircraft. So can Mode-C, but where TCAS can pin a Mode-C return down to plus or minus 200 feet, that becomes plus or minus 50 feet with Mode-S. The CAA says that’s important, but a study of Mode-C and Mode-S equipped aircraft by the Massachusetts Institute of Technology several years ago found it made no difference to the workload of ATC.

Vested interests who make and sell radar systems are not keen on ADS-B

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The saga of the greenfield-brownfield site debate grinds on, with some saying it’s a lot of fuss about nothing and others seeing a Trojan horse full of rapacious developers.

In a footnote, old planning guidelines to local authorities used hospitals and airfields as examples of sites which, although partly developed, might not be considered as wholly suitable for development – brownfield sites, in the modern argot. New guidelines omit these specific examples. When the draft guidelines were published AOPA was told the omission was “a slip of the pen”, but despite assurances the reference to airfields was not included in the final version.

The government claims the airfield example in the original guidelines was purely that – an example – and did not of itself safeguard any airfields, therefore it’s removal does not remove any safeguard. The situation remains as before.

In a letter to Lord Rotherwick, president of the GAAC, planning minister Baroness Andrews says: “The footnote in previous PPG3 policy (the old guidelines) referred to circumstances where a building occupied only a small proportion of a previously-developed site, and the remainder was open land, then it would not normally be appropriate to develop to the boundary of the site… neither PPG3 nor its successor PPS3 specifically exempt airfields from development. However… PPS3 does include a clear statement that there is no presumption that previously-developed land is necessarily suitable for housing development, nor that the whole of the curtilage should be developed.

“PPG13, published in 2001, sets out the national planning framework for transport, and includes advice on how local planning authorities should take account of aviation interests in preparing local plan policies and determining planning applications. In particular, paragraph 6 of Annex B of PPG13 states that local authorities should identify and where appropriate protect sites and surface access routes, both existing and potential (including disused sites) which could help to enhance aviation infrastructure serving the regional and local area; and

avoid development at or close to an airport or airfield development that would be incompatible with any existing or potential aviation operations.

“So PPS13 makes clear that local planning authorities need to consider, in allocating sites in their plans, the potential of existing and potential airfield sites (including disused sites) for aviation purposes, alongside any other planning considerations for reusing the site for a different purpose, such as whether the site would be suitable for housing under PPS3”

8.33 kHz above FL195

On March 15th it became mandatory to carry an 8.33 kHz radio when flying above FL195. The mandate applies to the entire ICAO European Region. Eurocontrol said the date had passed without incident, and that awareness of the need to carry 8.33 above that level seemed to be high. A programme of ground radio conversions is under way.

Up-to-date information on 8.33 kHz above FL195, including the planned frequency conversions, is available at www.eurocontrol.int/vhf833/public/standardpage/VerticalExpansion.html.
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