

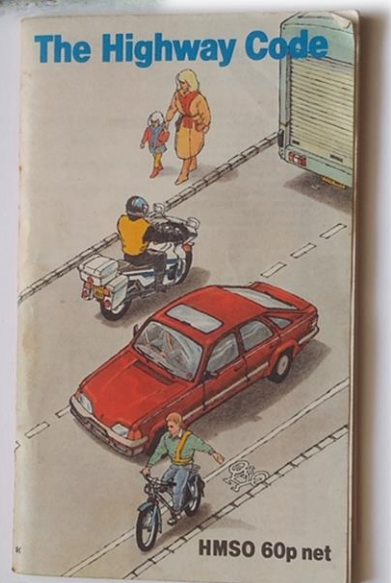
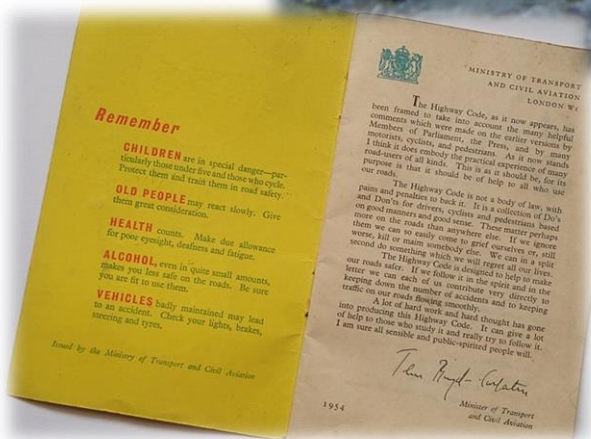
# GAM

Guildford Advanced Motorists



## Newsletter

### Spring 2021



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## **Coming up in the next Issue ...**

- Continuation of a Kit Car Build ... Paul Whitehead
- Reflections of / Enjoying Driving in Devon ... Graham Ranshaw

## Chairman's Message

Hello everyone. If you told me a year ago that we would still be in a state of suspended animation, I don't think I would have believed you. I have now decided that it is much better to limit one's expectations to a point where you can't get disappointed. We (GAM) are now at last planning again to get back to post lockdown coaching. In mid-April we will refresh our available observers, and in mid-May we expect to be able to start coached runs again with nominated observers. Sadly, 'Sunday-Runday', based at GBC's depot won't happen for the foreseeable future. As last year we will focus on those Associates who are close to test ready, followed by Associates who have been with us prior to Covid, and finally those who signed up most recently.

We anticipate that we will still have limited observer availability in May & June, and we already know that a number of senior observers have decided to step down. This means we are going to have around 20 Observers and will need to initiate a recruitment drive. If anyone is interested, please don't hesitate to have a chat with Tim or myself.

So, what else has been going on? For many of us driving will have been very limited, our recent online meeting "Coming out of hibernation", focused on issues that Members and Associates had experienced and wished to share. We had a very lively and interactive discussion. Personally, I'm looking forward to getting back to Masters, and I've recently had some interesting discussions with a GAM Member who is keen to explore best practice in electric vehicles (EV), hopefully fill some gaps in the IAM RoadSmart guidance, and perhaps more importantly provide some pointers for GAM Observers. I recently attended a sister group's online meeting with Richard Gladman (IAM RoadSmart HQ) supposedly about EVs. I have to say I was expecting something more enlightening, and was very disappointed that it was really just a list of EVs and hybrids he had experienced. If there are any EV owner/drivers who want to share in this discussion, please don't hesitate to contact me. Since the beginning of 2021 there seems to have been a deluge of new EVs coming to market. Clearly, pricing is getting a bit keener, the used car (pre-owned if you prefer) market for EVs seems to be taking off, and maybe restrictions on ICE and hybrid vehicle purchase are starting to impact decision-making.

Finally a reminder/warning.....If you're recently over 70 and have received an automatic 11 month driving licence extension, beware! You can't use the extended licence outside the UK, if you renew on-line you lose the C&D classes and if you want to keep them, the post service takes 6-8 weeks.

Stay safe, keep alert,

*Gordon*

**Gordon Farquharson**

GAM Chairman

## Editorial Matters

Welcome to the Spring 2021 edition of the GAM Newsletter. In this issue we look at dashcam tips, further details on autonomous vehicles and Paul Whitehead's experience of building his own kit car. We also take a look at the history of Highway code publications.

Remember that **we want to hear from you** ... letters, comments and articles should be sent to [editor@guildford-iam.org.uk](mailto:editor@guildford-iam.org.uk)

Should you know of anyone you feel might be interested in an Advanced Driving Course, please put them in contact with us: [membership@guildford-iam.org.uk](mailto:membership@guildford-iam.org.uk)

### Editor's small print

Please note that the views and comments herein are published without prejudice, being those of the writers and not necessarily those of the Guildford and District Group of Advanced Motorists or IAM RoadSmart.

**Disclaimer:** Driving is never a black and white activity, but full of grey areas, therefore neither GAM nor IAM RoadSmart are liable for any consequences you may experience because of reading our advice. You are the driver. You should always be in control of your vehicle at all times.

**UK GDPR.** Members and Associates are reminded that names, addresses, telephone numbers and membership details are stored to manage the group and the distribution of Guildford Group correspondence. We do not pass your details on to anyone else.

## Letters to the Editor

A message from Andrew Griffiths, a member of GAM for thirteen years, shares his story of volunteering as a driver for a surplus food charity while on furlough.

Dear Editor

### **In the Eye of the Storm**

I work in Air Traffic Control and, in the interest of safety, it is not advisable to try working from home, so I found myself on furlough for long periods of 2020. When this happened for a second time last September, and with both my children back at school, I decided to volunteer as a driver for a charity called '**Surplus to Supper**'. The organisation is based in Sunbury-on-Thames, where I live, and was set up in 2017 with the aim of '**Bridging the gap between food waste and food poverty locally.**'

Volunteers help collect food from supermarkets which is either close to its sell-by date or surplus to requirement. This is then sorted and distributed to foodbanks, charities and schools within a 5-mile radius. On average 2000 frozen meals a week are also made using the surplus produce. A café and weekend food shop help fund any running costs. In the current pandemic demand for the charity's services has increased greatly in a very short time.

As the charity is located close to Heathrow airport, and with so many flights being cancelled at short notice, donations from airlines are regularly received. For example, British Airways has given cutlery, blankets and beverages. My role is driving one of the two refrigerated vans the charity owns; either a Mercedes-Benz Sprinter or Renault Trafic, both manual gearbox models. I am always amazed by the sheer amount of food we handle each day which would otherwise be destined for landfill. I work up to four shifts a week and no two days are the same. I could be collecting 100 boxes of popcorn from a Heathrow Airport warehouse one day to fruit, flowers and vegetables from a supermarket the next. Unwanted bread is taken to a local swan sanctuary, so nothing is ever wasted.

I am really able to apply my advanced driving skills and experience to the role. I start with a **POWDERY** check at the beginning of each shift, with the addition of switching on

the vans refrigerated cooler and monitoring the temperature of the load area. This then continues with the IPSGA systematic approach to each journey helping with the following:

1. **Smooth braking and speed control** - fully tested with a delicate load of eggs or cakes on board. It is always an indication of how smoothly, or otherwise, I have driven on opening the van doors to see how many crates have moved or fallen over!

2. **Positioning for safety and view**- Manoeuvring a wider, longer vehicle often requires careful judgement of gaps with any unsympathetic parking by others making an already narrow road or entrance even more difficult to negotiate. Wider cornering helps to avoid clipping nearside kerbs. Both vans are fitted with reversing cameras which help enormously in busy loading bays with forklifts whizzing around.

3. **Observation and awareness**– Deadline or not, the last thing the charity needed is the expense of a speeding ticket or accident repair. I am very aware that with the "Surplus to Supper" name emblazoned on the sides of the van I am a mobile advert for the charity, so always want to make a positive impression on the road with courteous and professional driving.

4. **Hazards and planning ahead.** Lockdown brings reduced levels of traffic but also means a greater number of cyclists on the road, pedestrians suddenly stepping into the highway to maintain social distancing from others and local roads lined with parked cars as more people stay at home.

5. **Stability.** I am also responsible for the safe loading of the van so always conscious of carefully stacking the crates of food so that their weight is distributed as evenly as possible for optimum balance of the van.

After a while I also began appreciating how much this work is also benefitting my mental health. By doing something positive with my spare time it has given me structure, something to focus on and reduce the isolation I can feel during furlough, by meeting new people. It is replacing many of the things I miss from my usual job, such as social contact and working in a team, albeit socially distanced.

Overall it is very satisfying to volunteer in a role where I can use my advanced driving skills to help make a real difference in the local community. I am able to help others and also to benefit personally while on furlough at a time of crisis.

For more information visit: [www.surplustosupper.org](http://www.surplustosupper.org)

Kind regards,

*Andrew Griffiths*

Dear Editor,

### **The autonomous vehicle**

I found the articles in your last newsletter on driver assisted technology and 'self-driving' or driver assisted motoring very interesting, but I was left with a sense that the process is naturally flawed, and its development is likely to be lengthy, if ever completed.

There is nothing wrong with developing vehicles that automatically transport one or a few passengers from A to B with no human intervention (Docklands light railway?). A 'car' that follows a guided route (presumably by a mixture of satellite navigation and ground based signals or controls) will be free from some of the risks of humans making decisions behind the wheel, but the contributors to the articles you published made some worrying statements:

Tim Shallcross said:

*Automatic Emergency Braking. If the technology detects a risk of running into stationary or slower moving vehicles it gives the driver a warning. If the driver doesn't react, the brakes*

*are applied hard to stop the car and avoid a collision or reduce the severity of it. However, sometimes the system will detect a collision risk when there isn't one. For example, if the car is on a bend the radar might identify a parked car as a risk.*

So that's a good solution - unidentified object = slam on the brakes!

*Adaptive Cruise Control (ACC) - Trucks may pull into an overtaking lane at the last minute to pass a much slower moving vehicle. If this happens, your ACC will suddenly pick up the slower moving vehicle and brake hard.*

That's useful on a crowded motorway at 70mph.

*Lane keep assistance - if the lines are worn out or covered in snow or mud, the system can't detect them and will not operate.*

Note to Surrey CC Highways team.

Jonathan Webber was then reported as asking:

*Should a car save its passengers at the cost of killing or injuring other people? Should it swerve to avoid someone in the road if this means hitting someone on the pavement? Regardless of how we resolve these practical issues, it seems that the enormous benefits of safe, driverless taxis should lead us to remove any other kind of car from our roads.*

And remove the other road users as well, just in case the 'car' decides they are expendable in an emergency?

John McDermid then gave us some issues to ponder:

*Lousy weather, heavy traffic, roads signs with graffiti on them can all negatively impact the accuracy of sensing capability. To enable truly autonomous cars, these sensors have to work in all weather conditions anywhere on the planet, from Alaska to Zanzibar and in congested cities such as Cairo and Hanoi.*

Artificial intelligence not as good as the worst human drivers then?

*Once an autonomous car is on the road it will continue to learn. It will drive on new roads, detect objects it hasn't come across in its training, and be subject to software updates.*

I would like to think that for such a high-profile activity as propelling a ton of metal along the road most of the software issues had been dealt with before the 'car' was released. Microsoft take note.

*Without collaboration on how we make the car safe, provide evidence of that safety, and work with regulators and the public to get a "stamp of approval", these cars will remain on the test track for years to come.*

We don't therefore seem to be any further forward other than to have lots of great ideas and several research projects in hand. I think, from the little that I know, I can foresee many years of trials and very little actual progress. The main problem will be how to integrate current vehicle use with fully autonomous use on the same piece of tarmac.

Although electronic systems will be capable of significantly faster problem solving than my brain, the ability for a radar system to tell the difference between a plastic bag blowing across the road and a small child running into the road has to be proven absolutely. The autonomous vehicle may see the former issue, make an incorrect judgment, and perform an emergency stop, only for the driver of the vehicle behind to shout 'what did you do that for?' as they swerve to avoid. What am I going to tell my insurance company? The machine in front didn't react in the way I expected?

As experienced drivers, we will not be able to 'second guess' what the intelligence of an automated vehicle will do in every circumstance. But I can today make some fairly good predictions as to what my fellow motorists might do in most circumstances, and usually I get it right, or quite close; we are all, mostly, from the same planet.

So, the problem becomes one of space and cash – can we afford to set up a completely new road system in parallel with the one we have already where only automated vehicles are allowed. Then, as the automated vehicles gain knowledge and acceptability the traditional road system is made redundant.

Or maybe that is called a railway.

Yours faithfully

*Paul Whitehead*

Let's hear your views! [editor@guildford-iam.org.uk](mailto:editor@guildford-iam.org.uk)

## Chief Observer's Message

### What's in your Wallet?

I was sat outside the chip shop the other day when a builder's van pulled into the space in front. The driver got out and headed off to get his take-away. About halfway, there was a sudden stop, a quick pat-down and then a return to the van. Fortunately, the windows of our car were shut, so I could not hear him say 'oh-dear' a number of times as he rummaged through the van. With a final 'sugar' he got back in the van and departed, sans take-away. My guess is that he could not find a 'face covering'.

Given the mandatory nature nowadays of face coverings, seeing the above performance made me wonder just how prepared people are for a normal day. Never mind coping with an unexpected event. At this point I have to make an admission – I have done exactly as the builder above did – get somewhere with no mask! However, for the best part of a year I have had a pack of masks in my 'crash bag'.

We all have crash-bags (some call them 'go' bags), don't we? The origin of my crash-bag is down to elderly relatives – If I got 'that' call at work, would I have to drive home first to pack a bag before traveling? For years I had a 'crash-bag' in the boot of the car – small enough to go on a plane – with everything I would need for 4/5 days. Nowadays, I still have a 'crash-bag' in the car, but its contents have a different aim – to help with incidents on the road.

So, what is in my wallet? (crash bag). There are disposable gloves (more than one pair), tyre pressure gauge, foot pump. Also, there is a torch – small enough to hold in your mouth (unlike a smart phone). Battery booster (cold nights and you left the lights on). Thick, clear plastic sheet, scissors and tape (enough for two broken side windows). Flashing beacon with a magnetic base. Plus, the latest addition – face masks. I also have a 'high-vis' weatherproof jacket, but that does not fit in the bag! Even though the number of times I have needed items from my crash bag, has been thankfully few, I have used every item in there at some time in the past. The last time I needed something from my bag highlighted that not only do we sometimes need this 'stuff', but we need to know how to use it well. I know what you are thinking – nothing in the items listed above need a three-week course on how to use them. And you would be right, but try this scenario: 4:30 am, on an unlit section of 'smart' motorway, so not much traffic. However, a significant proportion of what

traffic there is, consists of articulated lorries. You are driving along, and the tyre low-pressure light comes on. So, what do you do?

I would suggest your initial response – grab your phone and live stream the upcoming accident to TwitBook, might be 'fun', but is probably not the best/safest option. So what did I do? First, as I already know the traffic situation (remember IPSGA), ease off the accelerator – how is the car handling? Feels different and pulls to one side, but not too bad. Also, no bad noises, so probably not a 'blowout'. Allow the speed to fall further, but not down to a walking pace, remember the speed differential between you and the lorries behind – a lorry in the boot is more of an issue than a flat tyre. Use hazard warning lights.

By now an emergency refuge is coming up, so pull into it and stop as far from the live lanes as possible – you don't want to lose a door as you open it! Make sure it's safe to get out, move to the near side of the car in a position to check the rear lights are operating correctly (remember its dark).

At this point it's time to breathe and take stock. The tyre low pressure light is on, so check the tyres – nearside look/feel ok, front offside is ok too, offside rear is very soft (almost flat), move back to the rear nearside position. So, I have a 'real' issue - now what? Pump it up or change it? Had it been nearside then possibly change, but it is offside (and dark), so initially pump it up and see (safest option?) Move to the middle of the boot (trying not to obscure any lights) and first put on your 'high vis' jacket, then gloves, stick the flashing beacon on the top of the car and turn it on. Then get the foot pump and pump up the tyre. It is at this point I learnt something new! I am right-handed. When checking tyre pressures, my natural tendency is to face rearward when looking at the nearside tyres and forward when checking the offside tyres. I had not thought of the consequences of this until, when taking the cap off the valve, the first lorry came past! It certainly causes some muscles to tense. Even with all the flashing lights, high-vis jacket and lack of traffic – most of the lorries came past in lane one, as fast as ever. Once that first lorry had gone past, I scurried back to the far side of the refuge – to consider how to approach this (changed) situation and more importantly let my heart rate slow down.

After some thought, I ventured back out, but kept looking rearwards as much as possible and positioned the foot pump so that I was facing to the rear when using it. I pumped the tyre up to a couple of pounds over the recommended pressure. Packed everything away and got going again. Initially at slow speed, to see how the car handled, then up to 'lorry' speed until I could get off the motorway. Once off the motorway, parked safely re-checked the pressure – it looked good. So carried on to work. Another check before setting off for home, after work - via a non-motorway route.

The tyre remained 'good' for a few more days then the POWDERY checks spotted it was flat again. It was finally traced to a screw that had become embedded in the tread and only really leaked when the tyre got warm.

So, what's in your "wallet"? Have I missed some essential bit of kit? Do you have a crash-bag? Do you think it's worth it? Let us know.

Would you have handled this situation differently? Let us know. All tips and hints welcome, the best will be shared.



Drive Safe, Stay Safe

*Tim Lyon*

GAM Chief Observer

## **Become an IAM RoadSmart qualified Observer!**

For more information, email [training@guildford-iam.org.uk](mailto:training@guildford-iam.org.uk)

## **From IAM RoadSmart**

### **The sound of Sirens ... Tips on how to help.**

We can be driving to a destination, minding our own business when out of nowhere there's the sound of sirens. We tend to have to locate which direction the sound and vehicle is coming from before we navigate ourselves into a position on the road where we can move out of the way for emergency services vehicles. In support of the recent Emergency Services Day, IAM RoadSmart's Richard Gladman, head of driving and riding standards, has some tips to remind drivers and riders how to reduce the risks we face in these situations, aid the emergency services, and make the road a safer place for us all.

#### **Where to stop**

It is important to stay calm when you hear sirens and see blue lights. You will need to find somewhere safe so you can pull over to the left and stop. If in a congested area, try to stay out of bus lanes and avoid mounting on kerbs, pavements and at traffic islands. Do not make any sudden or unexpected moves.

#### **Slow down, move over**

You may find there can be breakdowns, collisions and lots of congestion on all types of roads. These situations can be very distressing and potentially dangerous – for both emergency services vehicles as well as for occupants of stranded vehicles. When manoeuvring in these situations its vital to help those involved by slowing down, moving over and passing to the right-hand side of the road.

#### **Traffic lights**

Emergency services vehicles can find ways to navigate around you at traffic lights. You may need to pull over to the left a little if they are passing through a congested queue. However, if you are first in the queue at a red light, it's important to stay where you are, do not pass the stop line, unless you have been advised to do so by a police officer.

#### **Motorways and dual carriageways**

When driving on motorways and dual carriageways, pull over to the left while avoiding using the hard shoulder and allow any emergency vehicles to pass in the outside lane. Ideally get ready to do this if you are stopped in a queue behind an incident before the blue lights appear in your rear-view mirror. In slow or stationary traffic, if an emergency vehicle cannot get through, their positioning of the vehicle as it approaches you will signal whether you should move left or right. Once the emergency vehicle has passed by you, stay vigilant and do not not move until other vehicles following the emergency vehicle have also passed.

#### **Motorway incidents**

Highways Traffic Officer and emergency services vehicles are likely to stop in motorway and dual carriageway lanes, when attending to or approaching an incident. They can be

protecting other vehicles involved or removing debris which can be blocking the road. When driving, keep an eye out for the overhead red X gantry sign or other instructions which are displayed. These signs aid in smoothing the flow of traffic, help drivers predict there could be an incident ahead and clear the lanes.

### **Stopped emergency service vehicles**

If you see an emergency vehicle stopping or has already stopped, you should prepare for people to be exiting the vehicle as they step into action. You will need to slow down, keep your eyes open and anticipate the actions of others. This will give you enough reaction time to the situation at hand, this will give everyone enough time to stay safe.

Richard said: "By following this advice you can do your part to help emergency service teams nationwide and make the roads as safe as possible for all road users. Drivers of emergency service vehicles are trained to a high standard. They do not want you to panic and will not expect you to put yourself in danger or damage your vehicle to make way for them. If you have caused a problem by mistake, stay calm and be guided by them, they know what space they need and will ask you for it."

Gem Motoring Assist have developed some engaging animations showing others how to interact with emergency services, to contribute to a safer road environment. To watch these animations and find out more go to: <https://www.bluelightaware.org.uk>

## **A picture paints a thousand words. Dashcam tips from IAM RoadSmart**

We have all seen the publicity on TV and online that exposes bad driving on our roads in the UK and worldwide. The essential ingredient that draws us all in is the dash-cam footage of the bad behaviour – a picture paints a thousand words. There is no doubt that dash-cam footage is invaluable in exposing scam claims and can be of benefit when it all goes wrong. Here are some simple essentials to consider if you are fitting a camera to your car.

- If possible, get the camera fitted professionally. The wires will be concealed and the unit itself properly secured in a location that does not impede your vision. If fitted correctly the unit will not provide any distraction to you while driving.
- If you have fitted the camera yourself, you need to get a balance between replicating the driver's view and making sure the unit is not a distraction. Remember wires dangling across the windscreen or controls will affect your control.
- Make sure the unit is recording and set correctly – there is no point in having the camera if the memory card is still in the box or the setting requires manual activation and you forgot. Always make sure you activate before you start your journey.
- The best units will give a view to the front and the rear, this will give a better perspective of any incident especially if your collision is from the rear.
- The camera lens will not necessarily pick up all the information you are seeing as the driver. There may be relevant information to the sides of the vehicle that is not recorded. Be aware the clip may be of poor quality or too short to see the developing situation.

- Most importantly, the camera is not a substitute for good driver behaviour. It will tell the story of an incident from its own perspective, whoever is to blame. But if we are behaving properly and maintaining our Advanced Driving standards on the road, the extra information afforded by the camera, should an incident happen, will of course be beneficial.
- If you do record an incident make sure you save or copy the clip correctly, it may be required by your insurance company or the police.

Richard said: "The benefits of having access to the footage far outweigh the possible problems if it has all gone wrong. Remember the recording is a last resort, it means that you have been unable to avoid an incident and are now trying to mitigate the circumstances. Is there information in the clip that allows you to learn? Could you have done something differently to avoid the problem? If you do record evidence of the bad behaviour of others, make sure you assess your part and if you can learn anything about your own driving before sharing. The best footage to have is of a safe journey with no incidents, and then a short piece of your car safely parked. The dashcam is no substitute for good training and better driver behaviour."

## Tips – Reflexology ...

It is generally acknowledged that if possible it's better to stay active when suffering with back problems rather than spending prolonged periods of time lying in bed. Regular physical exercise which involves moving the back, neck and shoulders is an ideal way to strengthen the muscles and keep joints mobile. Unfortunately for many who drive for long periods this means more time sat in the same position and less movement which can have a knock-on effects on our neck, spine, shoulders and hips. Over time this might lead to poor posture and pain. To mark the recent World Reflexology Week, Kate Mulliss from the Association of Reflexologists has pulled some tips together for all drivers whether you currently experience any back issues or not.

Empty out the back pockets of your trousers or jackets. Sitting on items such as your wallet, keys or phone can move your spine out of alignment and can also be very uncomfortable.

Adjust the back of your car seat to touch the back of your bottom and the back of your shoulders. The seat will need to have a slight incline backwards which will support the natural inward curve of your back. Reclining the seat too far back can strain your neck and head as you will keep having to lean forward to see out of your windscreen. It pays to take some extra time to position yourself correctly, especially if taking long drives.

Your headrest should be adjusted so that the back mid-section of your head meets the middle of the cushion when you rest your head back.

- Position your steering wheel if possible, by moving it up or down, to a position that suits you best and so your hands sit at about 10 to 2 on wheel. Sit close enough to the wheel to have a soft bend in your elbows. Sitting too far away can cause you to reach too far, which puts more pressure and stress on the spine, neck, shoulder, and wrists.
- Position your rear view and wing mirrors correctly, so you do not need to strain your neck by pulling it forward to look and see behind you safely. Your back muscles can tighten and stiffen when seated in the same position for too long

so be sure to take regular breaks. You should aim to take a 15-minute break at least every two hours or 100 miles. Use this time to move around and stretch. Breaks can improve your posture throughout the journey and your concentration.

If you feel that you have ongoing back issues, it is advised that you see a doctor because there could be other factors affecting your back.

Kate Mulliss from the Association of Reflexologists demonstrates a selection of hand techniques which drivers may find helpful. To watch their video please click here:

<https://www.youtube.com/watch?v=hu3HgtiGO1Q&feature=youtu.be>

For further tips please read our Ergonomics leaflet attached: [IAM RoadSmart Ergonomics Leaflet](#)

## Further Comment on Autonomous Vehicles

Following on from the articles on Autonomous Vehicles in the last edition, here is an article written by Dr J G Pelham from the Cranfield University Safety and Accident Investigation Centre who has first-hand experience of testing such vehicles.

**Autonomous Vehicles** Written by Dr Jonathan G Pelham PhD, BEng, PGCert, MRAeS

What does the future hold for personal transportation? One-way things might change is with the increasing use of autonomous vehicles. But what does autonomous really mean? Its meaning pertains to concepts related to free will and agency, but it has been co-opted by marketing groups who wished to distinguish their automated systems from others by implying they were more advanced, more intelligent, and more able to operate without supervision. The difference between an autonomous and an automated car to the general public will be very small.

<https://apps.dtic.mil/dtic/tr/fulltext/u2/a515926.pdf>

What is clear is that cars have included more and more automated systems in their design. Some were added to improve efficiency, some for safety, but the clear trend has been for their increase. A similar trend has been observed in aviation, indeed one the CEO of Lockheed Martin observed "Law Number XIV: After the year 2015, there will be no airplane crashes. There will be no takeoffs either, because electronics will occupy 100 per-cent of every airplane's weight." *Norman R.; Augustine. Augustine's Laws. Viking Penguin Inc, 1986*

While this is understandable hyperbole there are lessons to learn from aviation which can be used to predict the future for the automotive sector. In a study by Dr David Barry of the Cranfield University Safety & Accident Investigation Centre

<https://saiblog.cranfield.ac.uk/blog/how-long-do-pilots-really-spend-on-autopilot>

it was found from a sample of 14,000 Airbus A319 flights 95% had less than 440 seconds of manual flying. Why is this the case? Will it happen with cars? Aircraft can be flown completely hands off from start to finish but we do not yet choose to do so because of the greater ability of humans to handle unexpected events and perform higher level reasoning regarding goals and methods. These are areas where automation is yet to show equivalence with humans. Equivalence is the method regulators use in aviation to decide whether drones can be permitted to operate unsupervised. Do they offer an equivalent level of performance to an aircraft with a pilot in them? You may be surprised at how low the capabilities of human senses are relative to those of even cheaper systems now. It is only in the areas of higher reasoning and goal selection that humans have an advantage.

We are seeing industry leaders in automotive automation such as Tesla make great strides with their "Autopilot" and their new FSD (Full Self Driving) system.

Crucially however they are focussing on the lower-level control and navigation aspects leaving goal selection to the humans. These systems are still designed with the intent of constant driver supervision although less ethical persons may choose to do other things rather than pay attention. However, despite the problems of the humans still being in the driving seat, here are some bold claims that have been made regarding the impact of these systems on driver safety.

If they are to see more widespread adoption and other manufacturers following the same path some of the strategic paths will need to see further development. Tesla have been predicting owners could let their cars be used as robotic taxis when they are not being used and hence turn their asset into an income stream. Obviously, this depends on the FSD system reaching a sufficient level of safety to be accepted for driving unsupervised. Given the amount of data Tesla obtains from the cars system during use it is expected they will be able to continue to improve their algorithm based on how it is used. As with any system, flaws will however remain. One of the good signs for the future has been the attitude of Tesla. Adopting some of the good habits from the better software development groups they have a bug bounty program where they pay money to hackers who demonstrate a flaw or problem with their systems.

<https://www.technologyreview.com/2020/02/19/868188/hackers-can-trick-a-tesla-into-accelerating-by-50-miles-per-hour/>

In the short term no major change in regulation is expected so we should not expect the driverless car to be let loose on our streets just yet. The era of flying cars is even further off as aviation regulators are historically even more cautious when it comes to activities at low altitude over built up areas. It is true that small drones are driving some changes due to their sudden increase in popularity driven by their low price and good capability. Things that were made possible by the silicon revolution. However, while historically, new vehicles types have tended to be introduced and used in spite of the law before regulators have permitted their use, it remains to be seen whether that will be the case in this era. A reasonable expectation is that the automation trend will continue, and we will see further developments gradually change our driving experience as a society before it becomes normal not to need to supervise the car while it takes us from A to B. Will we be safer? As long as the cars don't start to set our goals and objectives we may be, i.e. the less autonomy our devices have the less risk of them doing things we don't expect and don't want. We might be safer if the machines chose our destinations and route but where would the fun be in that?

## **Build your own Kit Car (Part One of ...)**

**You can build a Crendon in your garage (and get it through IVA) in 22 months!**

Paul Whitehead



*Seasoned kit car builders and regular readers will know most of what follows; my intention here is to give the novice 'one time' builder the confidence that if I can do it, anyone can.*

I forget when or how I first heard of Anthony Hale and the Crendon marque. I had been to Stoneleigh a few times, scoured the internet for advice and ideas, purchased several kit car magazines, and been to a couple of other Cobra replica locations, but one sunny day in January 2018 we drove to Somerset to look at the Crendon. First impressions were good, and it took me a matter of days to call Anthony and discuss placing an order.

Many will know that owning Crendon was a new venture for Anthony, he having purchased the rights and parts from John Kerr, the inventor and owner for the first phase of its life. I was determined to do as much of the work myself as possible, but only chassis No.1 of the new era existed, and mine would be No.2. All the jigs and moulds were available, and the first car was to be supplied as a 'body on' rolling chassis during 2018 – I wanted to be different and attempt the whole build myself, and Anthony eventually agreed to sell me the chassis and body kits over the coming months.

I was never in any doubt that although I was talking to someone who had built more Cobras than I had ever seen, the next few months were going to reveal some problems and issues with me assembling the chassis and body, and many more with my lack of Cobra knowledge, but I was determined to get the build process under way and solve the problems as they arose. Anthony was receptive to suggestions and improvements, and I had the time and the energy to find solutions and feedback information. It seemed to work very well.

By the end of January 2018, I had ordered a chassis, collected suspension and differential parts from an elderly Jaguar XJS from Ben at Simply Performance, and received an estimate for a 'big block' V8 engine from Susan at Southern Automotive in the US. The Jaguar parts included 4 old wheels and tyres, and a V5C to enable me to SORN the old car and hopefully keep the number, or at least an age-related plate.

Everything in place to get the project started, and then the 'bombshell' – the Government produced the "Road vehicles - Improving air quality and safety" consultation, and if the DfT proposals had gone through un-amended we would all now be looking at unfinished projects and kit cars that would fail MOT tests.



I spent some time researching the industry and talking to other suppliers to try and establish the basis for my consultation response, a process familiar to me in my 'day job' and one that needed to be completed. I have no idea if my detailed response was even

considered by the regulators, but a few months later we all had the good news that

the proposals to have all kit cars fitted with CATs to meet "registration date" emissions standards had been dropped. A huge relief, especially as I had already ordered the engine.

Refurbishing the Jaguar axles was a challenge but not that hard to do – just very dirty and occasionally noisy as all the stuck and rusted parts were persuaded to part company, often improvising with a length of scaffold tube and my best, largest hammer. The Haynes manual was invaluable.



Ben's advice to use plenty of de-greaser, WD40, and heat worked on all but one bearing that was firmly stuck in the rear axle and needed the small angle grinder, and only one bolt refused to move on a front calliper and had to be drilled out.

A box of new bearings and seals soon arrived, and the old castings and suspension parts were taken for blasting and powder coating. The 2.88 differential was in excellent condition, as were the discs, front and rear; I think my Jaguar had an easy life and maybe did very few miles judging by the condition of the parts.



Re-assembly was a relative breeze following the notes in the manual, but I did find out that all the instructions for the assembly of the rear suspension lower pivot were

wrong – hours of fun working out in which order to use the felt washers and covers, wishing I had taken more photos of the originals as they came apart.

The chassis was finished and powder coated by the end of February, so a trip to Somerset to collect it soon followed. It was an easy 2-man lift on to my small trailer, and a trolley was constructed from 4x2" timber with 4 castors to assist access and moving around my garage. Fitting the rear axle and front suspension came next, the refurbished callipers and new pads looking terrific on the newly coated chassis.

Temporary turnbuckles were used to mimic the final ride height at each corner, and the brake lines were bent to shape and neatly fitted to the chassis rails with rubber protected 'P' clips. It was about this time I started consulting the IVA manual since some of the work under the car has to meet specific parts of the regulations, and clipping brake lines would be one of them.

Coil springs and shocks went on reasonably easily using bolts from the packs provided with the chassis, and the brakes were bled for the first time before announcing I had a completed 'rolling chassis'. Body next.



It took a while to source a van large enough to contain the body shell, but it will just fit in a 4m Sprinter with a bit of juggling. All the other 9 body parts fitted around it, and offloading was an easy task. The roof of my garage was only constructed from 1" angle so I fitted some 4x2 timber cross bars and removable uprights with pulleys so that the body shell could be lifted when needed – I lifted the shell and my wife tied

off the ropes, making the job quite safe and supporting the shell above the rolling chassis. We lifted it on and off many times!



The sequence for the fitting and completion of the body was somewhat a matter of trial and error for me. Anthony had by then completed fitting the body for No1 chassis, so the detail of the assembly was available to see, and lots of pictures helped. A couple of large tubs of resin and a pile of glass mat were ordered, and the

process began, during the hottest summer for many years which reduced the resin work time to a matter of a few minutes. Many clamps, pegs and temporary fixings were used to get the body in the right place, with string lines across the axles and along the body for measurement and alignment. It's not a difficult process to fit the body, but you do have to take your time, measure everything many times, and mark joint positions carefully. If you are not confident with fibreglass and sheet metal work this is one job better left for Anthony and his team.

The alignment of the body at this stage will affect the fit of the doors, the clearance to the wheels front, back and top (hence the overall look of the finished car), and the alignment of other panels and fitments, so this part requires great care.



A handful of temporary fibreglass strips were used to align the shape to the chassis, then the body was lifted and turned over to complete the glassing in of all the rear panels.

Back on the chassis, the alignment was still pretty close, although at this stage I should have paid more attention to the fit of the doors as they turned out to be a real test of patience and ingenuity at a later date. Anyway, lots of Wunderseal and paint was applied, and the underneath rear of the car was looking good. Another tip at this point is to work out where you want heat shielding glued in under the front wings and around the foot wells, since this is tricky to fit later (and subsequently upside down) – I know for sure.

Looking ahead and trying to think about all the possible pitfalls is difficult for the novice. I had never attempted a build like this before (despite many years of misspent youth taking cars apart), so inevitably I did jobs twice or even three times, and often in the wrong order. Anthony was of course a great source of advice, and a manual was provided for each part of the build, but he agrees that he cannot watch over your every move or 'second guess' what you will try to fit today, so problem solving becomes a part of the fun.



I could have drilled the holes for the throttle cable above the pedal, saving an "upside down in the foot well" experience, or welded in the nuts for the seat belt turret (now a standard fitment), or drilled and tapped some holes for earthing and fixing points such as the fuse box and cable saddles; all would have saved hours of fun later and scraped knuckles. Anthony has taken some of these ideas on board and future Crendon builders will hopefully have the benefit of my lack of experience and poor planning.



One lesson learned at an early stage was to stop work the minute anything went wrong. It could have been as simple as a dropped washer or a measurement not double checked, but any mistake would be punished later, so best give in whilst still winning. The car will still be there next day, just as you left it, and you will still have 10 fingers! That mantra meant I never needed a plaster on

any wounds.

Anthony had supplied two 8'x4' sheets of 2mm aluminium and marked the approximate pattern of a multitude of parts on them. First problem – how to make accurate folds in the cut parts. A simple bender was fabricated from old angle iron, hinges and straps, and this worked really well for the bends I needed. The list of parts included front end bulkheads and closers between the engine bay and the passengers, two inner front wings, five or six parts for the transmission tunnel, two closures for under the doors, and various brackets and panels around the rest of the car. There is not much left out of those two sheets after all the parts are made.

Fitting the aluminium sheets involved large quantities of rubber strip, sealing paste and button head M6 fixings, and loads of rivets and rivnuts. Every joint was sealed, more to prevent any rattling in future than for any other reason. Future proofing and reliability engineering were high priority for me.



The body was gradually and finally fitted to the chassis, measuring carefully at every stage to ensure front to back and side to side alignment, and after utilising a small boy in the boot with a torch and a pen to mark the boot hinges, the remainder of the body fitting went reasonably well. I decided at an early stage to leave the final alignment of the doors, boot and bonnet to the body shop since my skill set stops when filler and paint are needed. And then the engine arrived.

A large crate from USA contained a 447cu.in. big block Ford V8 and a 5 speed Tremec box, along with all the trimmings. UK Customs clearance was painful on the wallet and painless in the execution, and it was shortly after this that I realised I would need a long reach engine crane, so Gumtree came good and one was located 60

miles away, one careful owner. A pair of engine lifting brackets were fabricated from angle iron, and I was aware that the big block would need some mods to the bell housing for clutch slave arm clearance and general chassis rail clearance, so these were attempted before the first fit of the engine. It was tight – very tight.

Clearance for the bell housing was measured in mm, the clutch slave arm was still touching the foot well, and access for bolting the exhaust headers looked nigh on impossible.

More problems to solve. But every task was isolated, considered and resolved, one by one. It would all be alright in the end. The engine was finally located onto its mountings and the crane then used to assist with the gearbox installation. The usual juggling into position finally worked, and the main shaft slid through the release bearing and onto the locating pins.

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(Part Two coming up in next issue.)

## History of Cats' Eyes ... or Road studs?

I recently saw a programme on this and was intrigued by this story of how something that is so familiar to us now, came into being ... and it did of course make me realise how there is more to these than meets the eye! We do rely on them, even if we perhaps seldom think about how much they have become a 'household name', but do we actually know how they work or indeed, where they originated from? Or that they were dubbed "The most brilliant invention ever produced in the interests of road safety."



They've been around since the 1930s and the details of how they work are laid out in Rule 132 of the Highway Code.

The Cat's Eye is a safety device and is used on 99 per cent of roads in the UK. The device was invented by Percy Shaw, who worked as a road-mender. The story behind the

invention is quite a famous tale.

It is said that Shaw was driving home at night in the fog in 1933 when he reached a dangerous part of the road; Shaw claimed that at night he drove by using the reflection that his car headlights gave off in the tram tracks. But on this night in 1933 the fog was so bad that there was no reflection off the tracks, and he could not make out where the road turned into the hillside. That is until he had the fortune of spotting his headlights reflecting back from the eyes of a stray cat that was sat by the road.



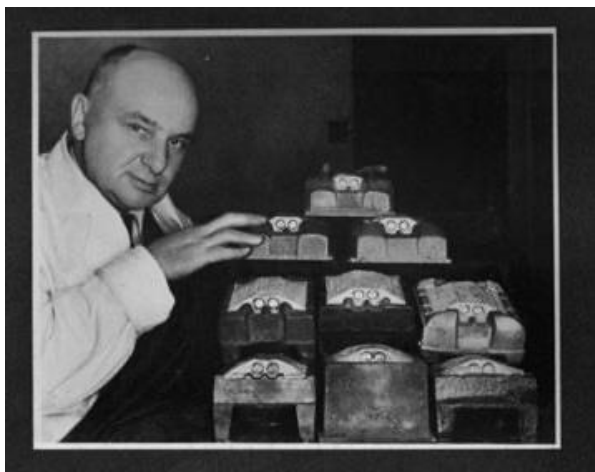
This was when it clicked that it would be a brilliant idea to replicate the reflection of Cats' Eyes to guide drivers along dark and dangerous roads. Shaw realised that as

the car was becoming more popular, and more motorists would want to drive at night - they would need a guide as headlights would not be enough to keep them safe.

### **Patent Registered for Cat's Eyes**

Shaw registered the patent for the Cat's Eye in 1934 but it took several years to design what is known as the Cat's Eye. It took him so long because not only did he make it bright enough to illuminate the road at night, but he also made it tough enough to withstand all weathers and vehicles driving over the top of it.

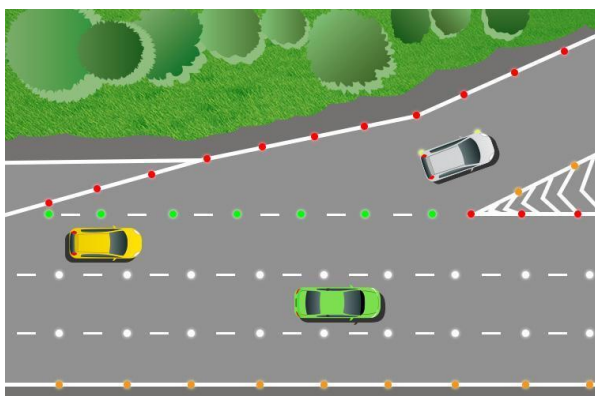
It was not until 1937 however, that Percy Shaw won the contract from the government to mass produce the Cat's Eyes. Shaw made the road safety device from four glass beads, a rubber moulding and a cast iron base. To give off the best possible reflections Shaw decided that it was best to position the glass beads in pairs and face them in opposite directions. This was all integrated in an elasticated rubber moulding, which was firmly attached to a cast iron base. To keep the device in place it was buried and fixed in position with asphalt. Shaw made his Cat's Eyes really tough, even if vehicles drove over them - the rubber was shrunk into the road and the glass beads dropped safely beneath the road surface and remained undamaged.



Shaw even made them to cleanse themselves with the help of a little rain-water – the cast iron base collected the rainwater and whenever a vehicle ran over the top of the Cats Eye, the weight pushed the dome down and then the rainwater would automatically wash the glass beads keeping them clean and motorists safe. Shaw's company "Reflecting Roadstuds Ltd", at its peak, made over one million Cats Eyes a year and exported them across the globe.

There are variations of the original Cats Eye on UK roads, these are noted below:

- The original Cats Eyes are white studs that separate lanes or the middle of the road.
- Red studs warn motorists that they are close to the left edge of the road.



- Amber studs warn drivers of the central reservation of a dual carriageway or motorway.
- Green studs signify the edge of the main carriageway where rest-areas and access roads exit the main road.
- Green/yellow studs warn drivers that there are temporary adjustments to lane layouts, e.g. where roadworks are taking place.

## A Slightly different Advanced Driving test

“Oh s\*\*t, you stay as you are, he’s a lucky boy!”

Not a phrase most Associates will hear during their Advanced Driving Test (ADT), but that was not the only point of difference in my exam.

I first took my ADT on the last Saturday of November 1981 (passing with the help of the South London Group), and decided to retake it on the last Saturday of November in 1991; again, I passed with the help of the South London Group.

Nine years later, I again recognised that my driving skills had deteriorated over time and so determined to retake the ADT in 2001 on ... yes, you guessed it, the last Saturday of November. However, in the intervening ten years, I had (in chronological order) moved work location to Farnborough, Hampshire, moved house to the same town and got married. The Basingstoke Group was now my local Group and they improved my driving to the point where they thought I would pass again. I applied for the exam and specifically requested that my exam be on the last Saturday in November.

Unfortunately, due to an administrative mix up of my home post code with that of someone else, things turned out quite differently. I prepared my car (a 1996 petrol-engine Rover 620SLi) on the previous Sunday by checking tyre pressures and items under the bonnet, gave it a vacuum inside and cleaned the windows inside (Associates, please note). I had developed the habit of doing the same checks concurrently on my wife’s midnight blue 1996 Saab 9-3 2.3 litre petrol engine hatchback (a habit which I maintain). On the Thursday before exam Saturday, I received a `phone call from an examiner in Poole, Dorset; he was very surprised when I told him I lived in Farnborough.

Using a road atlas (remember one of those?) I estimated it would have taken me about 1.5 hours just to arrive at the start of the exam. I called IAM HQ and established that they thought I lived in Bournemouth; I was very disappointed but felt that it was best to wait for date when it would be closer geographically.

On the following Monday at about 3pm I took a very short `phone call at work: “is that Mr Heavens?” “Speaking” “This is Police Sergeant X: what are you doing at 5pm this afternoon?” “Taking my ADT?” I cheekily asked. He asked me for my car’s registration number and told me to park in a visitor’s parking space outside Farnborough Police Station and wait for him. The line abruptly went dead. My first thought was “oh no”, I have borrowed my wife’s car today, which has a manual gearbox and I have been used to driving my automatic gearbox car. My second thought was “I am so glad I prepared both cars” and the third was “Where on earth is Farnborough Police Station?”.

Not having time to return home, I parked in a space outside Farnborough Police Station (colleagues told me where it was located). Soon after 5.30pm, the car door opened and the (youngish) examiner got in. He apologised for still being in uniform (he had just left court and did not have time to change knowing he was already late) and did I mind that we were breaking IAM’s guidance that tests should only take

place in good weather and daylight (it was dark (as you would expect at that time of year) and raining gently at the time).

The disadvantage of leaving the Station at about 5.45pm was that we immediately hit heavy going-home traffic. Rather than be intimidated by the uniform, I soon became quite enthused because every motorist at every junction saw the uniform and thought I (who was in a dark suit with white shirt) was driving an unmarked police car: the result, much to the frustration of the examiner, was that I was let out at every junction even when I should not have been. I soon realised that the brusqueness of the 'phone call was because he was between court appearances; he turned out to be good company.

The best bit, though, was still to come! I turned off the M3 Southbound carriageway onto the A287 heading towards Farnham. Initially there were some winding stretches and I stuck tightly to the speed limit. Shortly afterwards, a pair of headlamps appeared in my rear-view mirror and very rapidly caught me up, and then proceeded to stay so close to my tail that I am sure I could have switched the engine off and been pushed along. Ignoring the pressure, I resolutely stuck to the 40-mph speed limit. Eventually the driver behind let his frustration boil over: flashing the headlamps angrily and leaning long on the horn, he overtook me in his dark Golf GTi doing about 60 mph and started to disappear into the distance. "Right", said the policeman, "we'll have him" and reached up to the centre of the roof over the dashboard. "Oh s\*\*t", he said as he realised that he was not in a police car. "You stay as you are, he's a lucky boy!"

Not only did I pass the exam, but it was by far the most enjoyable exam I have ever taken (even subsequent retests have never had that excitement!). The story did not quite end there, because I retook the test again in 2011 (yes, I did have my preferred date), by which time I had moved to Woking and the Guildford Group successfully coached me through the exam. My certificate, though, was sent by HQ to the Basingstoke Group!

*Clive Heavens*, GAM NO

## **A short history of motoring – my first 50 years** (Part Two)

Paul Whitehead

My company 205 1.9 GTi had done its 3 years and was replaced by the larger Peugeot 405 1.9TD Estate – these were good cars, well known for their handling, and huge inside. Many summer trips were spent up and down to Southern Europe as well as countless miles in the UK. I was regularly managing 30,000+ miles per annum, so most of my cars went past 100,000 miles with ease before they were returned. We were turning to diesel now as many of our private miles were done in Europe where the diesel was significantly cheaper. A second 405 Estate followed – they had a good reputation in the nineties.

The black Impreza was a bit of a liability, mainly when parked, but it was in good condition, so another Subaru enthusiast took it off our hands for a reasonable price, and we replaced it with a Jaguar X-type 3 litre 4wd saloon. This was supposed to

perform nearly as well as the Impreza, albeit with 50% more engine capacity, and it was quick. The Jaguar was a step up in luxury from the Japanese plastics, despite having a reputation as a Mondeo in Jag clothing; it had some new innovations for me such as cruise control and other gadgets.

Lifestyles change and company car tax rules changed, and it was becoming increasingly more expensive to stay in the company car scheme so I opted out and we traded the X-type for an Audi A6 Saloon. I am not a particular fan of the traditional 3 box saloon, but it was large inside and met the need.

We were still racking up 40,000 miles each year in our 2 cars, and the Audi was at home cruising on the motorways of Europe, but the handling on UK roads was never that brilliant – it seemed to seek out all the bumps in the road. Audis are a bit 'Russian doll' in their styling, but they are well made and the A6 is a big car.

As a second vehicle we then turned to Ford again and purchased a second-hand Ranger. It was 2005 by now, and the truck was a workhorse of the local community, shifting materials and towing trailers – you could put a full pallet of concrete blocks into the load bed and it transformed the agricultural handling.



We kept RJ04 for 12 years and sold it to friends in the village – it still goes past every day with sheep in a trailer or bales of hay in the back.

The blue Audi saloon went to 120,000 miles before we traded it and purchased a nearly new Audi A6 Avant to replace it. This was bought over the phone, sight unseen, from a dealer in Huddersfield, and it was one of the best cars we had owned. The Audi suspension was still not too happy with Surrey roads, but the load bay was huge and it took roof rails and a tow bar, so it was made to work for its living. We did get a shock one day when driving down the M3 and an identical black A6 estate went past with what looked like exactly the same number plate – were we cloned? We never received any tickets.

Another four years went by and the Avant also went past 100,000 miles so it was replaced with a Jaguar XF Sportbrake. Another 2-litre diesel engine but this time our first mistake – it was automatic! Neither of us ever got used to the auto box, it didn't do what we expected it to do, and it definitely did not like the Alpine roads we subjected it to three or four times a year. I could never get the paddle shifts to work properly, and putting it into 'Sport' mode was fine until you tried to select the 'wrong' gear or ignored it and it reverted back to the start. This is probably all 'operator error' but it is too much hassle – give me a stick with 5 or 6 cogs every time. We persevered for a couple of years or so, and it was a very nice place to be on a journey, but eventually it had to go.

Our first brand new car for many years was to be the Discovery Sport. We actually went to the Halewood factory to see them being made early in 2016, and very probably saw ours on the line or in the dispatch yard – it arrived a week or so later. The Halewood trip was excellent – a long way to go for the day, but we spent three hours or so with a small group walking round the whole factory, standing next to the

huge metal presses as another wing or bonnet comes out, and watching all the component parts being added to each vehicle according to a detailed 'just in time' schedule. 80 cars an hour, with each workstation having 80 seconds to do their bit – the manufacturing machinery and robots are just as fascinating as the cars.



The old Ranger was also due to be moved on – this one had far fewer miles than usual for us, but it had been to Italy with a trailer and done some quite interesting 'off roading' (picture above was a training exercise, not a ditching) so it owed us nothing and helped fund a replacement 2015 Ranger with a 2.2 turbo diesel rather than the 2.5 TD of the first model.



The newer Ranger was better equipped and suited various needs for off road ability, winter work (with a full set of snow tyres on separate wheels – essential even in UK), and towing. And just for fun, whilst visiting family in Canada that year we rented a proper Dodge RAM truck – 5.7 V8, ten speed auto – we do like our trucks, just like the North Americans.

The Discovery Sport has turned out to be a bit of a disappointment. Some of the trim is already loose, there have been some electrical gremlins, and the rear discs had to be replaced due to wear at 40,000 miles despite the fact that the front discs and pads are fine and it's still on the factory fitted tyres, which shows what sort of driving gets done. It is apparently all down to the way the factory set the brake bias, so you have to brake hard just before arriving home to ensure the rear pads actually contact the discs and wipe them clean and dry to avoid corrosion. Isn't modern technology wonderful – that bit is not in the manual.

And so we go full circle as I now also have a 447cu.in. Crendon Cobra replica sitting in the garage. It is really interesting to get back to grass roots motoring after all the modern gadgets –



no brake servo, no power steering, no ABS or any other devices – just the driver concentrating on the task in hand and feeling it all through the steering wheel and the seat of his pants. After 2 years of build time the pandemic lockdown came at just the wrong moment, but I have got 400 miles on the clock and nothing has fallen off yet.

## In summary

Best car we had – probably the Peugeot 205 – brilliant, everywhere. Worst – sadly the automatic Jaguar XF – we are simply not auto box people, and that will never change.

Most useful – possibly the current Ranger – it is comfortable for 4, well equipped, very high up, not too bad on fuel, and reliable. And there's loads of space in the back for almost anything, on or off road, and it is actually challenging and interesting to drive well.



Most fun – the Cobra will probably get that vote eventually (from me, not my wife), but the 205 GTi is still a firm favourite, despite all the other candidates.

Interesting fact – of all the vehicles I have ever owned or used I do not recall ever needing a clutch replacement on any of them.

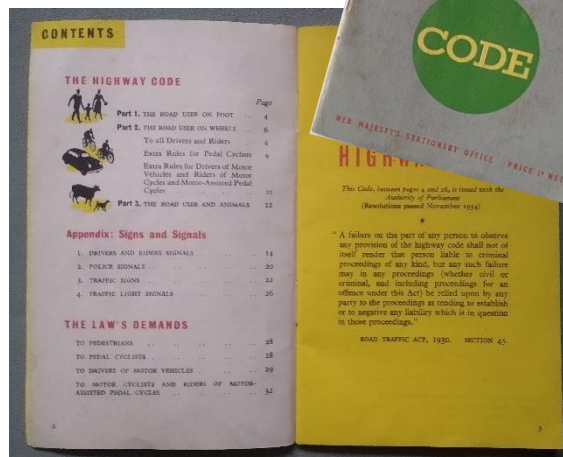
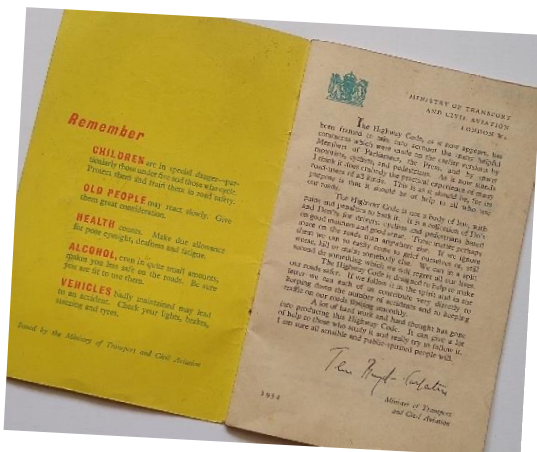
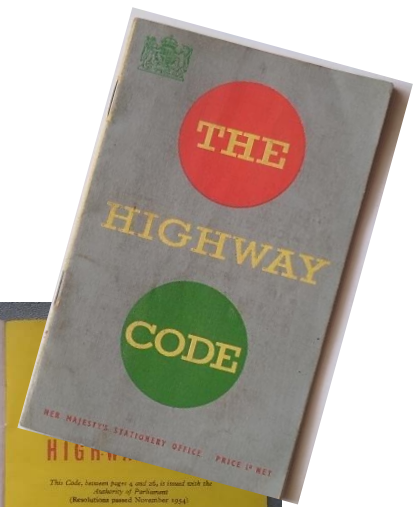
So that's the first 50 years of my motoring history – what will the next 50 bring, and what's your best memory?

*Paul Whitehead*

## The Highway Code ...

Val Pascual writes: After the Highway Code was mentioned by Paul Burn in his on-line Virtual Run and of course in the Paul Whiteheads Quiz that Paul Whitehead put together for us, I thought I would check which edition I had ... only to find I had several ... so here's just a little step back in time ...

**1954 – 32 pages Price 1d**

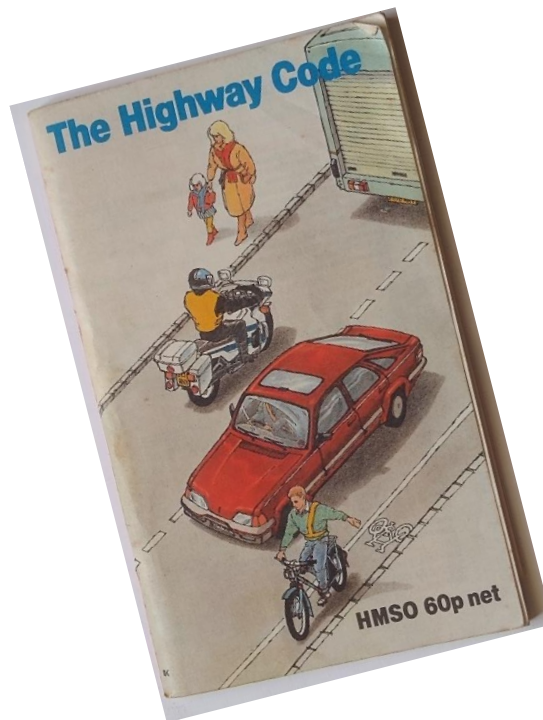
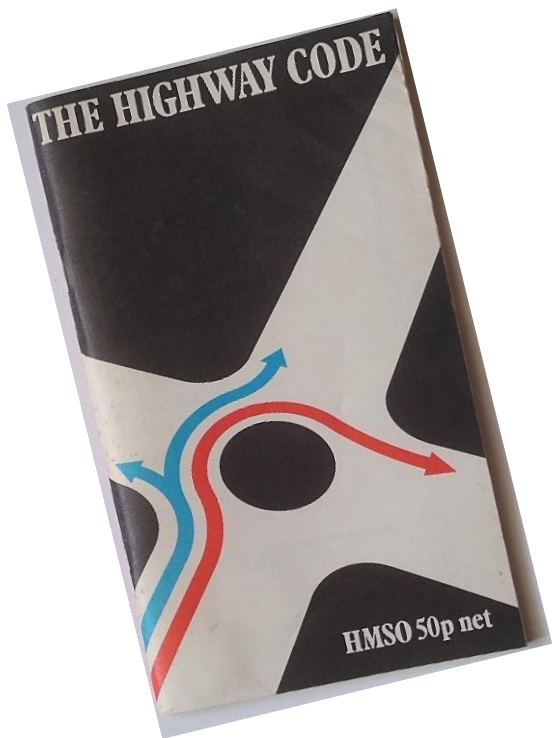


Now I do hope you understand that this copy was *not* the edition I used when I started driving but it certainly is a good read! So moving forward ...

**Revised 1985 71 pages**

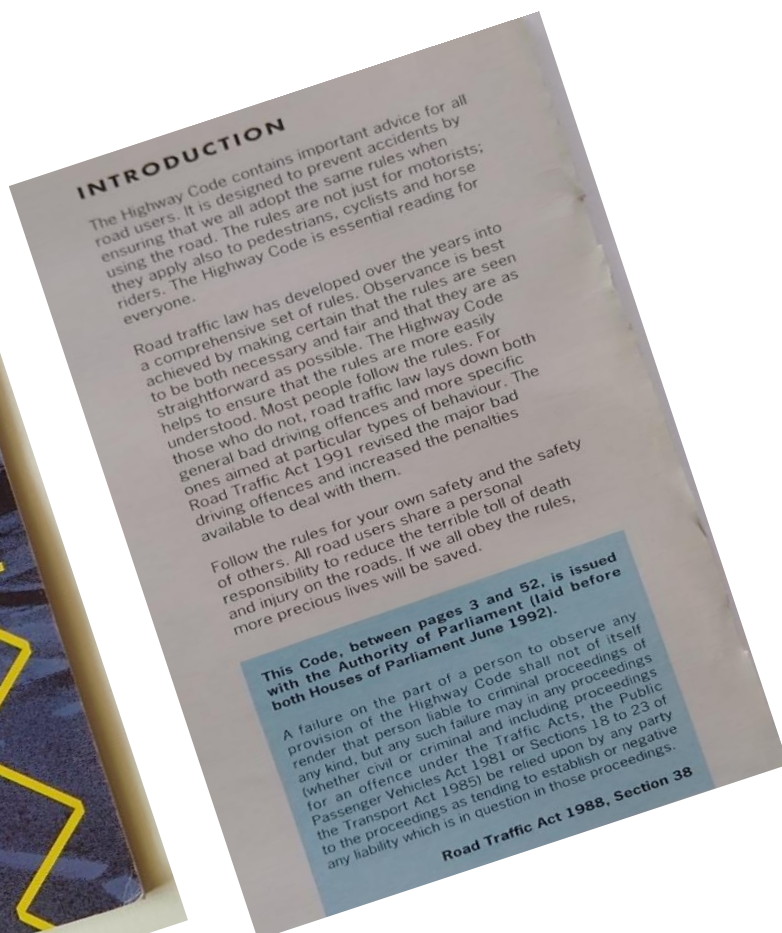
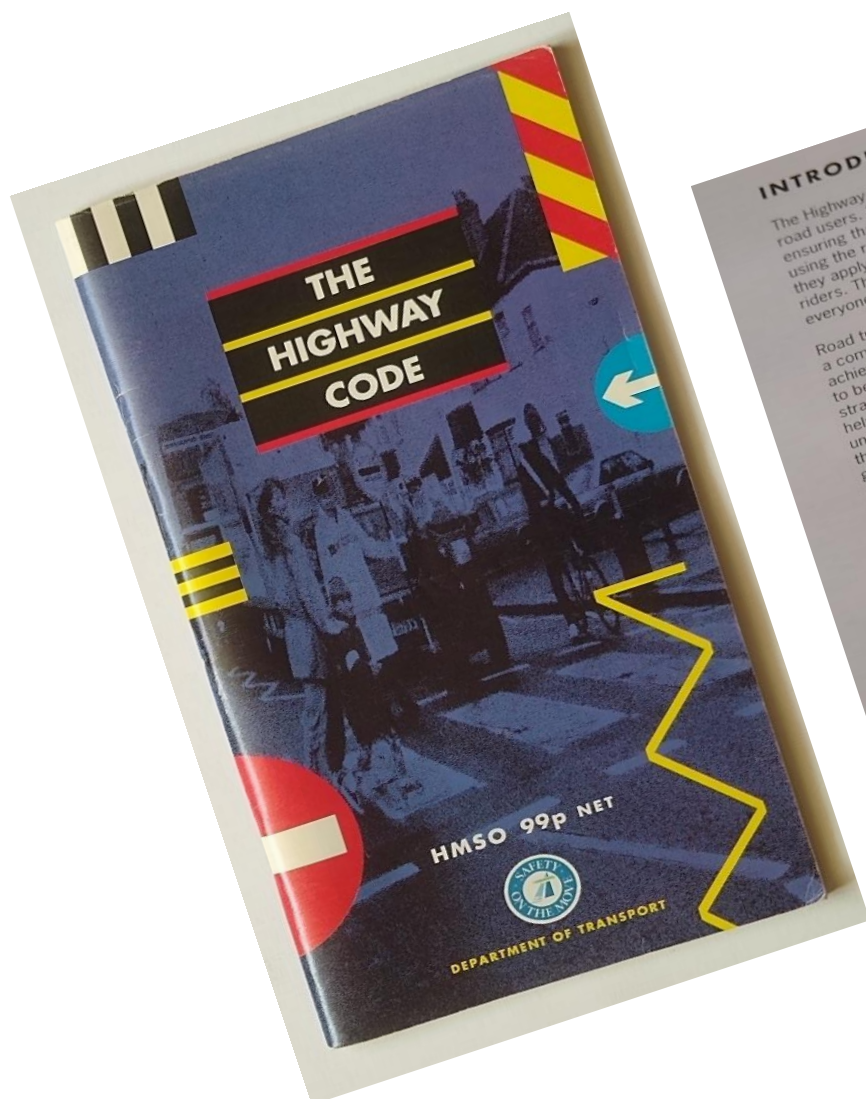
**Revised 1987 74 pages - 60p**





Now coming a little more up to date ...

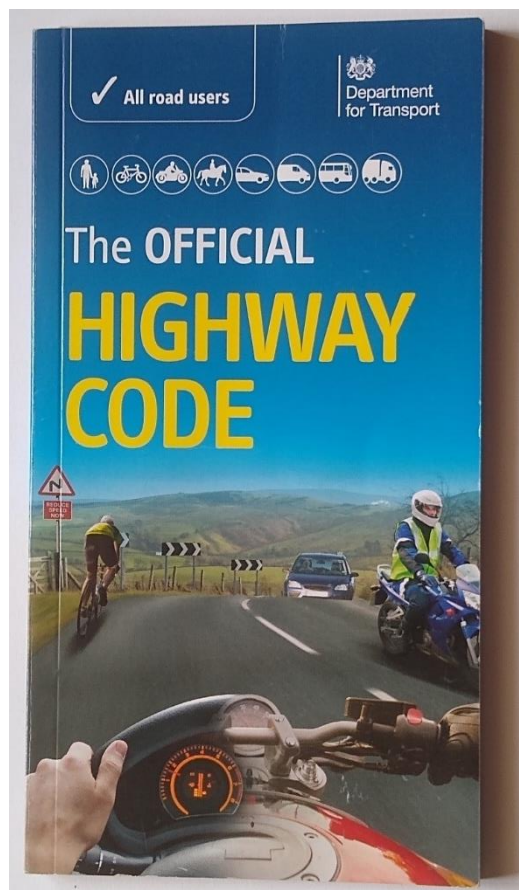
**New Edition: 1993**



Finally, to leave you with a few memories of the IAM some 30 odd years ago to now, as the cards shown here are first of all, my father's and then mine ... perhaps this explains why I had always wanted to do my Advanced Driving Test:



So how about you? Do you have any old editions or memories related to IAM or the good ol' Highway Code?



## Observed Runs "Sunday-Runday" & Non-Sunday Runs

**Currently 'Sunday Runday' from GBC's Woking Road Depot are suspended.** They will normally be conducted on the 3<sup>rd</sup> Sunday of each month between 9.15am and midday.

**GAM's alternative non-Sunday Runs (NSRs) are currently suspended.** We are intending to use 'Appointed Observer Runs' as soon as IAM RS allow coaching to restart. Clive Heavens our 'Non-Sunday Run Manager' will coordinate these appointments. [NSRManager@guildford-iam.org.uk](mailto:NSRManager@guildford-iam.org.uk)

**Cannot make your Observed run appointment?** We try to match the number of available Observers (all volunteers) with the number of booked Associates, but sometimes we realise things can go wrong. If you cannot attend your booked appointment, please let us know.

## GAM Diary Dates

**Events 2021** – See the GAM Facebook page.

## Observer Meetings 2021

Starting at 1930, venues to be advised and to be confirmed nearer each event as details can change (and are subject to COVID-19 restrictions).

**Dates:** 8<sup>th</sup> April, 3<sup>rd</sup> June, 5<sup>th</sup> August, 7<sup>th</sup> October and 2<sup>nd</sup> December.

These meetings will provide an important opportunity to get information and guidance, and importantly share experience and best practice with GAM peers. Currently these will be held on ZOOM due to COVID-19 restrictions. Please send apologies to Training Officer, Paul Burn.

**Committee meetings for 2021** – Thursdays @ 7:30 – on-line until further notice 6<sup>th</sup> May, 1<sup>st</sup> July, 2<sup>nd</sup> September, 4<sup>th</sup> November

**AGM** – Wednesday 29<sup>th</sup> Sept 2021 @ 20:00 - virtual if we have to but hoping for a venue.

**GAM's Advanced Driving test passes in 2021 so far** (COVID-19 affected)

None so far...

## GAM - IAM RoadSmart 'Fellows' Roll of Honour'



Craig Featherstone  
Philip Sivelles  
Val Pascual  
Rosemary Henderson  
Neil Fuller  
James Sohl

Matthew Lawes  
Ben Bridge  
Celia Dunphy  
Alan Powley  
Paul Whitehead  
Brian Miller  
Brian Mellor



## GAM - IAM RoadSmart 'Masters' Roll of Honour'



Dmitri Savin	2016	John Panting	2018
John Holcroft	2016 Distinction	Shaun Dymond	2019 Distinction
Phil Headen	2016 Distinction	David Nancekievill	2019 Distinction
Ben Bridge	2017 Distinction	Victor Olisa	2019
Graham Ranshaw	2017 Distinction	Peter Laub	2019 Distinction
Mike Hughes	2017 Distinction	David Clifton	2019 Distinction
Gearoid Conneely	2018 Distinction		

## GAM Management Team – Officers and Committee Members

Chairman	Gordon Farquharson	<a href="mailto:Chairman@guildford-iam.org.uk">Chairman@guildford-iam.org.uk</a> 07785 265 909
Secretary	Paul Whitehead	<a href="mailto:Secretary@guildford-iam.org.uk">Secretary@guildford-iam.org.uk</a> 07860 600477
Treasurer	Michael Tilney	<a href="mailto:Treasurer@guildford-iam.org.uk">Treasurer@guildford-iam.org.uk</a>
Membership Secretary	Neil Fuller	<a href="mailto:Memsec@guildford-iam.org.uk">Memsec@guildford-iam.org.uk</a>
Chief Observer	Tim Lyon	<a href="mailto:Chief.observer@guildford-iam.org.uk">Chief.observer@guildford-iam.org.uk</a>
Newsletter Editor	David Clifton	<a href="mailto:Editor@guildford-iam.org.uk">Editor@guildford-iam.org.uk</a>
Observer Training Officer	Paul Burn	<a href="mailto:Training@guildford-iam.org.uk">Training@guildford-iam.org.uk</a>
Non-Sunday Run Manager	Clive Heavens	<a href="mailto:NSRManager@guildford-iam.org.uk">NSRManager@guildford-iam.org.uk</a>

## Contacts



@IAMgroup

**GAM**  
Guildford Advanced Motorists



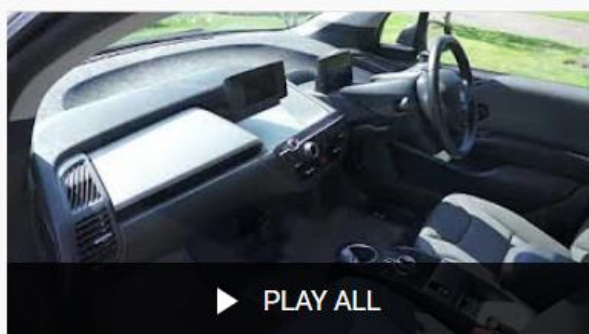
[www.facebook.com/guildfordiam](https://www.facebook.com/guildfordiam)



## YouTube **GAM Online coaching channel**

GAM YouTube Channel: *recordings of the GAM Virtual-Run* training sessions.

[https://www.youtube.com/playlist?list=PLAEIIOdg\\_iR8PTrcQGJhXdB\\_RyZ3dXhKL](https://www.youtube.com/playlist?list=PLAEIIOdg_iR8PTrcQGJhXdB_RyZ3dXhKL)



## GAM Virtual-Runs 2020

1. Vehicle Intro – POWDERY
2. EV Cockpit drill
3. GAM Virtual-Run IPSGA and the "System"
4. GAM Virtual-Run Bends
5. GAM Virtual-Runs Junctions & Roundabouts
6. GAM Virtual-Runs Overtaking
7. GAM Virtual-Runs Motorways/Dual Carriageways
8. GAM Virtual-Runs Slow Manoeuvring
9. GAM Virtual-Runs Automatic Transmission
10. GAM Virtual-Runs Commentary
11. Quiz night
12. GAM Virtual-Runs Vehicle technology
13. GAM Virtual-Runs Night driving, weather, vulnerable road users.
14. GAM Virtual-Runs The thinking driver, Human factors.
15. GAM Virtual-Runs Signals
16. GAM Virtual-Runs Q&A Forum

**GAM Website:** [www.guildford-iam.org.uk](http://www.guildford-iam.org.uk)