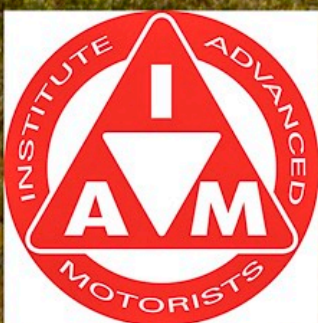
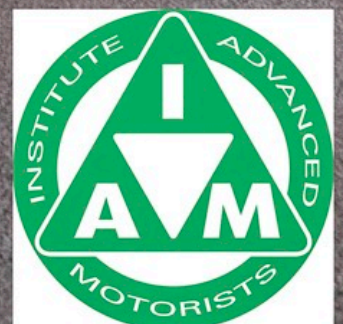


The Road Observer

The Newsletter of the North Down
Advanced Motorists Group



September 2017





Official Provider



The Road Observer

The Newsletter of the North Down Advanced Motorists Group (Group 8199)

Helping to Improve the Standard of Driving on the Roads in Northern Ireland and the advancement of road safety

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New Members

This month we would like to welcome to the Group car members Eleanor Blayney, Kevin Dellar, Darren Hendry, Grainne McCabe and Barbara Walker. We hope you not only gain from being members of our Group but will also enjoy the friendship and camaraderie of our get-togethers.

Advanced Tests

Congratulations this month to car members:

**John Seawright who achieved a F1RST
and to
David Brown and Joyce Cairns**

Also to motorcycle members:

Chris Purce and Michael Wood who both achieved a F1RST

Good luck and safe driving or riding to any Associates approaching their test.

Cover picture

The summer issue cover picture was taken on the B27 which runs from Hilltown to Killeel. It was taken just after the road starts to descend after passing Spelga Dam and looking towards Killeel which is visible in the distance. Congratulations to Ronnie Fails (who also provided a 6 figure map reference - that's commitment), Angela Bell, Gareth Hughes and Annie McFarland.

Can you identify the location of the cover picture in this edition? No prizes, just the satisfaction of good observation and, of course, a mention in the Road Observer.

Dates for your diary

26 September - STAC 2 - Human Factors

3 October - STAC 3 - Core driving skills

10 October - **Group Night - AGM Guest Speaker Ken Keir, IAM Chairman**

24 October - STAC 4 - Bends and cornering

31 October - STAC 5 - Roundabouts and junctions

7 November - STAC 6 - Overtaking

14 November - **Group Night - Tabletop rally**

28 November - STAC 7 - Motorways and dual carriageways

5 December - STAC 8 - Manoeuvring

12 December - **Group Night - Christmas dinner**

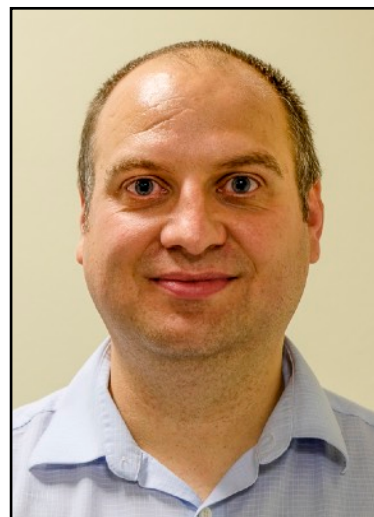
STAC - Short Term Associate Course. Associate Members should ensure that are familiar with the relevant section of the "Associate Handbook" before each STAC night so that you can get the most benefit from the theory session as well as your observed drive.

September Group Night - Graham Deane

Advanced Driver Assistance Systems

Graham opened his talk with a brief description of his background. He is a member of our Group having passed his advanced test in 2003, became an Observer in 2008 and then a Senior Observer. Work and family commitments mean that he is no longer active in the Group but he is conscious of the need to keep his driving standard at a high level and so is one of the first to become an IAM Roadsmart Fellow meaning that he has opted to be re-tested every 3 years. He is featured in the latest Roadsmart magazine.

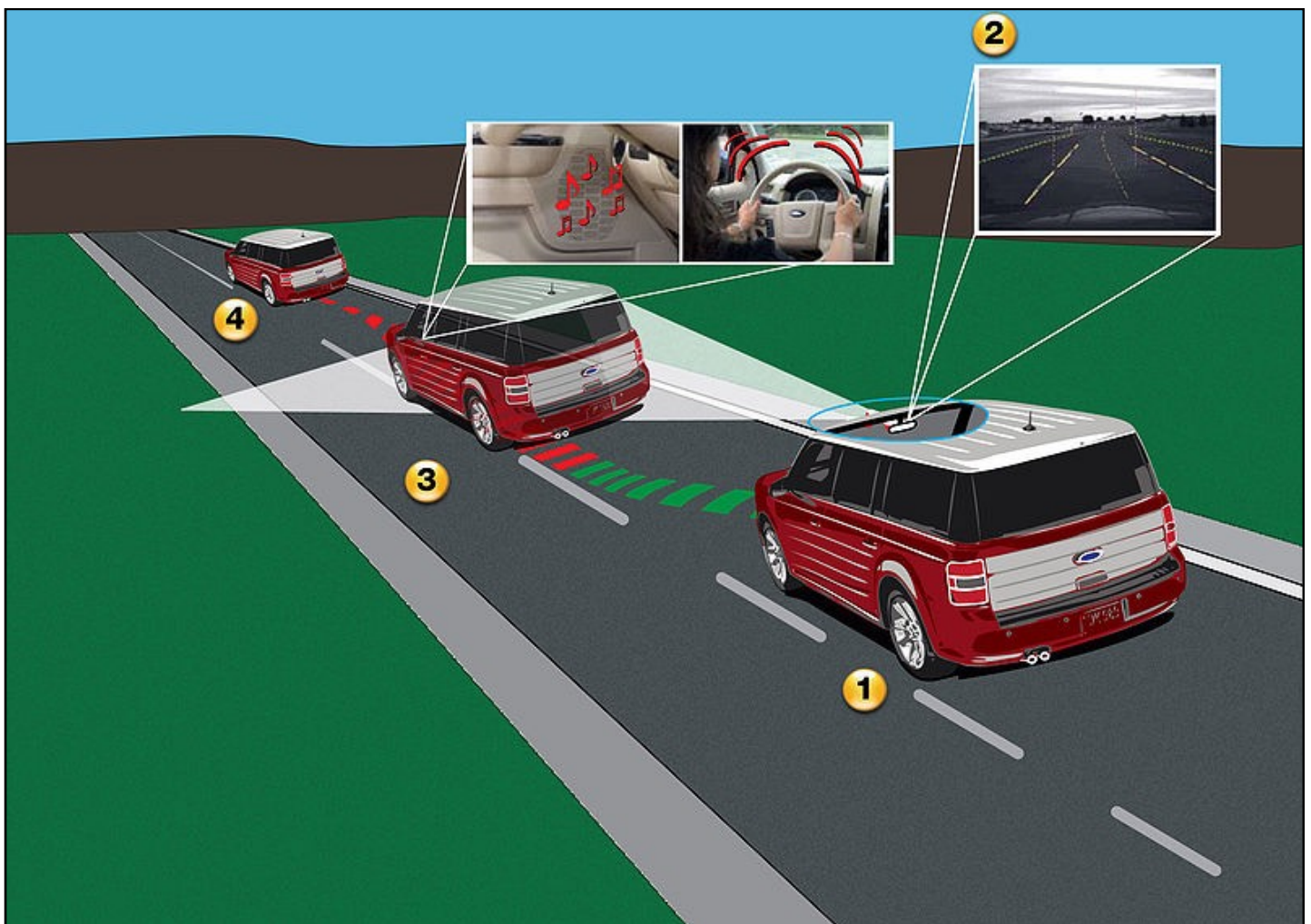
Graham is the Systems Engineering Manager with Sensata Electronics in Antrim (formerly Schrader). Sensata is a major developer and manufacturer of electronic components and the Schrader division within Sensata provides the electronic content of some 50% of vehicles in USA, Europe, China, Korea and Russia



shipping ~ 82m parts per year. His talk was about where we are today in terms of ADAS (**A**dvanced **D**river **A**ssistance **S**ystems) and where we might get to in the next 10 years. The Antrim facility is responsible for the development and manufacture of tyre pressure monitoring systems. These systems have to integrate with Driver focused HMI systems (**H**uman **M**achine **I**nterface), braking systems, body control modules, engine management systems (EMS), communication and telematics. Together these are key enablers towards automation.

Graham gave the example of adaptive cruise control which maintains a safe distance between you and the vehicle in front, reducing acceleration input or braking if the vehicle in front slows. However the automatic braking represents only about 40% of the maximum and requires the driver to do the rest in the event of an emergency. Many users are not aware that for these systems available today they 'the driver' are expected to be responsible (and liable) for the driving standards of the vehicle. Greater automation should, in theory, allow the driver to spend more time monitoring what is happening around the vehicle. However the reality is likely to be that skill levels will fall.

Graham went on to describe assistance systems as 5 levels. Level 1 is now available on many vehicles. It includes things like lane departure warning, blind spot assist, ESP (Electronic Stability Programme). The first 2 alert the driver whereas ESP uses a system of sensors to improve vehicle stability by adjusting the braking to individual wheels and may also reduce the power output from the engine.



Lane departure warning (image courtesy of Ford under Creative Commons)

Level 2 is where the driver is expected to monitor automated functions and is expected to assist. Using cameras and radar these include traffic jam assist for stop/start in traffic and parking assist where the car will tell you if it will fit into a space and, apart from controlling the throttle, the car parks itself. These types of systems are the car beginning to take control but they are convenience systems rather than autonomous control, again the driver is expected to be responsible for safe operation.

Level 2+ extends level 2 to perhaps include automated lane changing within defined situations such as normal Motorway operation but still has the expectation that the driver will take over within a short period of time if something unusual is detected. At level 2+ the system is more likely to be monitoring the driver to ascertain what the driver is doing and can go so far as to count blinks to check whether the driver is still awake. The system could disengage if the driver inattention is detected or if heavy rain or other environmental conditions prevents the system from working well. Alarms will sound when the system wants the driver to re-take control.

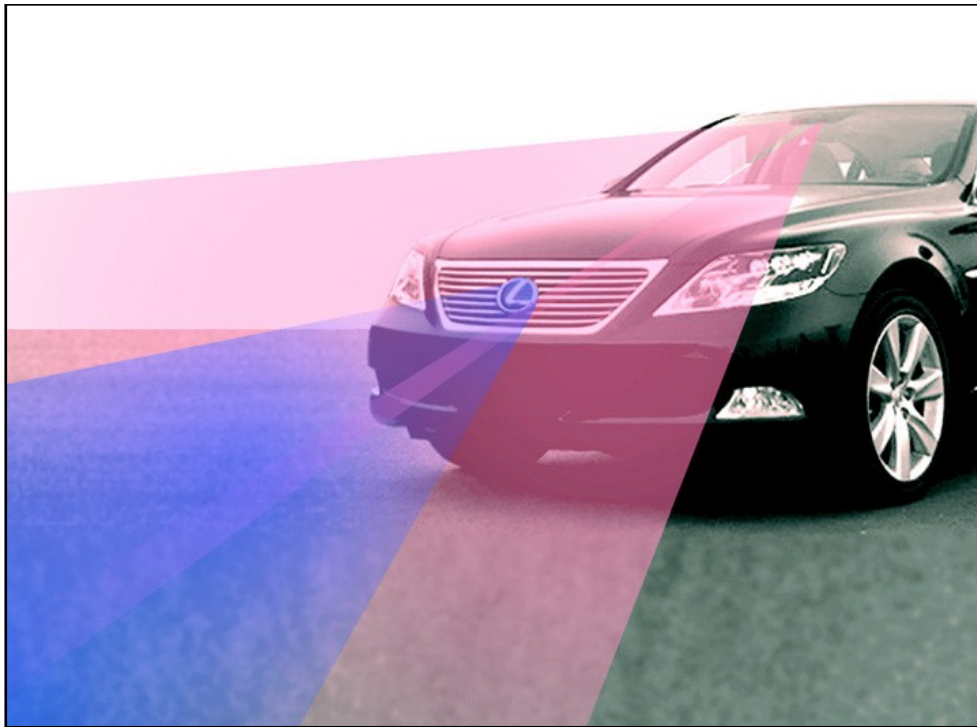


Image courtesy of Lexus and Altair 78 under Creative Commons

From here on we are looking to the future and Level 3 where the vehicle is making more decisions based on the data it is receiving. It is important to understand what the systems can and can't do. Graham gave the example of a dog lying in the road. The systems cannot predict what the dog will do and so it requires the driver to take over.

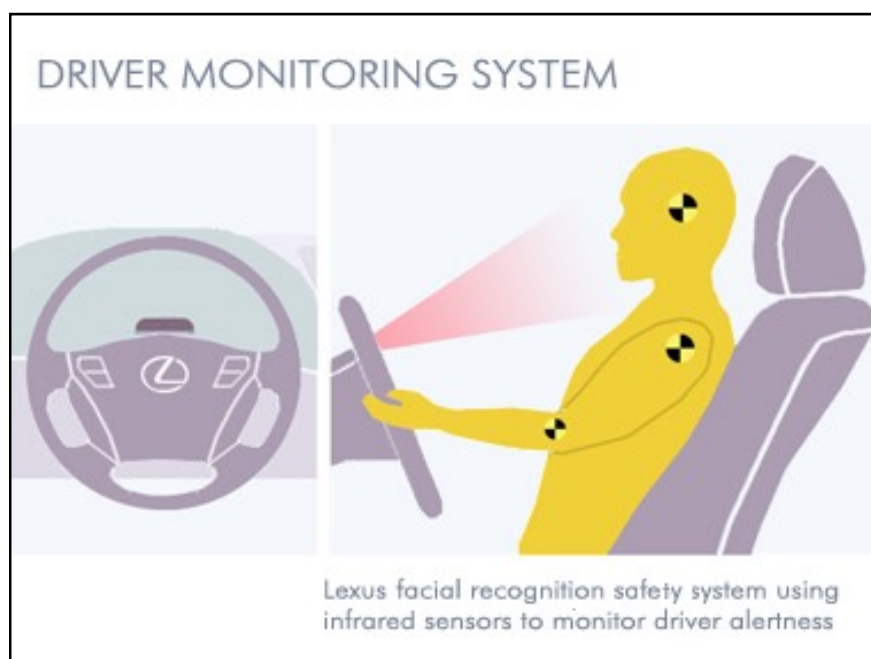


Image courtesy of Lexus under Creative Commons

Levels 4 and 5 are where automation really takes off. On certain stretches of motorways, car parks etc the car will be able to take full control using radar, cameras, lasers and vehicles communicating with each other to provide a picture of the road ahead and of what is happening around the car.

This leads on to fully automated driving where the car will drive itself from door to door through both motorway and in urban environments.

Graham reminded us of the recent announcement of trials of semi-automated truck convoys on UK motorways. Up to 3 wirelessly connected trucks will travel in a convoy with acceleration, braking and steering controlled by the driver in the lead truck. Each of the following trucks will have a driver in the cab to take over if necessary. In the short term the lead vehicle will be at level 2 leading to level 3 with the driver retaining supervisory control with the following two trucks running higher level of autonomy, relying on truck 1 and its human operator to guide them through un-planned driving events. Successful implementation could reduce congestion, reduce emissions and operating costs from the benefits of slipstreaming. Daimler have calculated that the distance between trucks would be as little as 15m whereas without vehicle to vehicle communication it would need to be 50m. This experience on the road will identify the issues and allow solutions to be developed.

Do we, as drivers, want automation or do we want to be in control? Enthusiast drivers will always want to be in control but for the morning and evening commutes where the skill is in avoiding the other idiots (sorry, drivers) half asleep going to work in nose to tail slow moving traffic would it be such a bad idea? Answers on a postcard please.

These developments and those covered in last month's issue on electric vehicles provide much food for thought.

Many thanks to Graham for an interesting and informative talk and good luck with the Fellow membership.

Roundabouts

Roundabouts sometimes send even the most experienced drivers into a panic. But never fear: IAM RoadSmart's head of driving standards Richard Gladman is here to help you out.

There are a few simple guidelines to follow:

Information: Look well ahead; check your mirrors so that you know what other traffic there is around you. Give any signals in plenty of time. Try and identify a gap in the traffic before you reach the roundabout, but keep an eye on the car in front – they may not go for the gap you would.

Position: Approach the roundabout according to which exit you're taking. Keep to the left lane to turn left or go straight and the right lane when taking an exit on the right. Watch for any road markings guiding you and try to give other vehicles plenty of space.

Speed: Slow down smoothly to a speed that's appropriate for the roundabout and will allow you to stop, taking into account the position of other road users.

Gears: Once you're at the right speed, and before turning, select the correct gear. If you do need to change gear on a roundabout, do it when the steering is on a set position. Do a final mirror check, especially the mirror on the side you are turning towards.

Accelerate: At a roundabout choose a gap in the traffic and accelerate smoothly into it – the same applies to any other junction.



Richard said: “At roundabouts, your plan from a way back is to stop. But gathering information can allow you to proceed. It is useful to try and consider the whole thing as one manoeuvre – that way you have a plan about which lane to be in, when to move into that lane, and what signals you expect to use. But you need to prepare to be flexible – other road users don’t always behave as we’d expect them to.”

Not all roundabouts conform to normal layouts eg in Newtownards Castlebawn and at Frances Street and Zion Place. For these it is important to pay close attention to lane markings. However, no matter how difficult these can be to negotiate they are not as bad as the magic roundabout in Swindon. Just be thankful you don’t have to negotiate this:



Ride Outs

August

A total of 9 bikes were out, led by Simon Beckett with Kyle Thompson doing tail-end Charlie. The route was Newtownards - Comber - Ballygowan - Saintfield - Ballynahinch - Dromara - Rathfriland - Newry - Meigh. Simon’s personal favourite road was Rathfriland to Newry.

Everyone enjoyed the forest drive at Slieve Gullion before heading home via Warrenpoint - Rostrevor - Silent Valley - Newcastle for coffee stop and then onto Downpatrick for the final stint back to Newtownards.



September

This was organised and led by Kyle and some 12 took part. The venue was the Sperrin Restaurant outside Omagh and the return was via the Glenelly Valley where participants experienced adverse road and weather conditions.

And finally - picture page.....



Love the picnic basket

Number plates:



The views expressed in the "Road Observer" are not necessarily those of the Editor, the North Down Advanced Motorists Group or the Institute of Advanced Motorists