

Advanced Driver Course

Observer's handbook





The bigger picture

Advanced drivers should be able to drive in a safe smooth and efficient manner at all times.

Through good observation, sensible anticipation and accurate planning, (OAP) combined with sound operation of their vehicle's controls, they should deliver a comfortable, progressive drive for their passengers while maintaining safety.

Modern driving aids such as satellite navigation systems, reversing cameras and auto park systems, are becoming more commonplace; used correctly, they can complement the skills of an advanced driver and enhance the overall experience. Appropriate use of such technology should therefore be encouraged.

Combining well developed skills and understanding with developments in technology should make you into a 'thinking driver' and create a safer, more enjoyable driving experience.

IAM RoadSmart Skill for Life course relies on you

Thank you for making it such a success.

As an IAM RoadSmart Observer, you not only play an important role in the confidence and ultimate success of the drivers you observe; you're also vital to helping IAM RoadSmart achieve its objective of making the UK's roads a safer place for everyone.

Thank you for sharing your skills and giving your time. We really do appreciate it. At IAM RoadSmart, we recognise that we each have our own approach to training and that we must also be responsive to the needs of the individual Associates we observe. To ensure a level of consistency, it is therefore essential to have an agreed set of standards covering every aspect of the advanced driving course. And that's what this document comprises.

This is the complete course for you to refer to, we hope you find it useful.

In compiling this document, we have consulted with a number of Groups and individual Observers and taken their comments on board. However, as it will be reviewed periodically, you are welcome to send any suggestions to us at submissions@IAM.org.uk

Thank you once again.

What has changed for you as an Observer in relation to the course content and the test?

What have we sent you?

Your pack contains the course content written for the Observer. It includes a number of hints and tips sheets that may assist you to put across relevant points related to the competencies contained within the course. There are also some ancillary hand-outs and knowledge reviews (quizzes) for the Associate to complete in order to check their understanding of the material. The Associate will receive the course content and the handouts. You give out the knowledge reviews as appropriate

What can be tested?

If it is in the course content, it can be tested. The course material mentions pre-drive checks, cockpit drills, running brake checks and in car technology. It follows that should they chose to do so, the Examiner may ask questions on any of these subjects during the test. The Associate would have been taken through these subjects with you during their observed drives

What is different?

The biggest change is probably in the test sheet. We have reduced the marking guide from 5 to 3 ratings

3 = Requires Development (fails to consistently demonstrate the competency)

2 = Satisfactory (Consistently demonstrates the competency)

1 = Commended (Consistently demonstrates the competency to a high standard with confidence; showing sound understanding of the interaction between this and other competencies)

First Defined as before with three 2's allowed, must do a commentary (spoken thoughts) and no 3's allowed

We have reduced the number of areas being tested from 27 to 23 by combining some of them

- Legality & Safety combined
- Eco driving/riding & Vehicle Sympathy combined
- Hazard Management & Planning combined
- Human Factors added to Concentration
- Restraint and Progress combined

We've added a section on the rear of the test form that gives a brief explanation of each area being tested. It is not comprehensive but gives a snapshot of what the Examiner should be looking for.

We've also added more room for you to write feedback on how the Associate performed on test. There is now less emphasis on inputs and more on outputs in relation to some areas:

- Steering (if it's not broken don't fix it). If the steering is accurate and smooth, the method of steering becomes less important as long as safety is always maintained
- Gear Changes (overlap allowed at low speed)
- Move from 'Police Commentary' to 'Spoken Thoughts'
- Inclusion of 'Human Factors' Competency
- Use of in car technology such as parking aids and sat navs
- Use of technology when parking, and a handout on use of in car technology

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The system at the core of Advanced Driving

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The lifestyle influences and other factors that need to be considered in preparation for advanced driving. This is the only competency not framed by IPSGA

The competencies framed by IPSGA

Competency 2 Core Driving Skills

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The skills required to operate a vehicle's controls with a degree of finesse. For example, to change gear in a smooth and timely fashion and to steer accurately

Competency 3 Bends and Cornering

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The practices and techniques required to safely negotiate bends and corners. For example, correct positioning, acceleration and the use of limit points

Competency 4 Roundabouts and Junctions

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How to safely enter, negotiate and leave junctions & roundabouts while executing the 'planning to stop but looking for information to go' approach required of advanced drivers

Competency 5 Overtaking

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All the necessary pointers for building awareness and good practice when overtaking; the area where drivers are most likely to come into conflict with another road user

Competency 6 Motorways and Dual Carriageways

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How advanced drivers should demonstrate awareness of the differences between motorways and dual carriageways, the likely hazards and how to avoid them

Competency 7 Manoeuvring

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The markers of confidence and proficiency that an advanced driver must display when turning a car and performing parking manoeuvres at the side of the road and in car parks

Commentary driving / Spoken Thoughts

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The practice of describing aloud everything you see, think and do while driving, in order to hone advanced driving technique

Run Sheet

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IPSGA

Information, Position, Speed, Gear and Acceleration – the system at the core of Advanced Driving

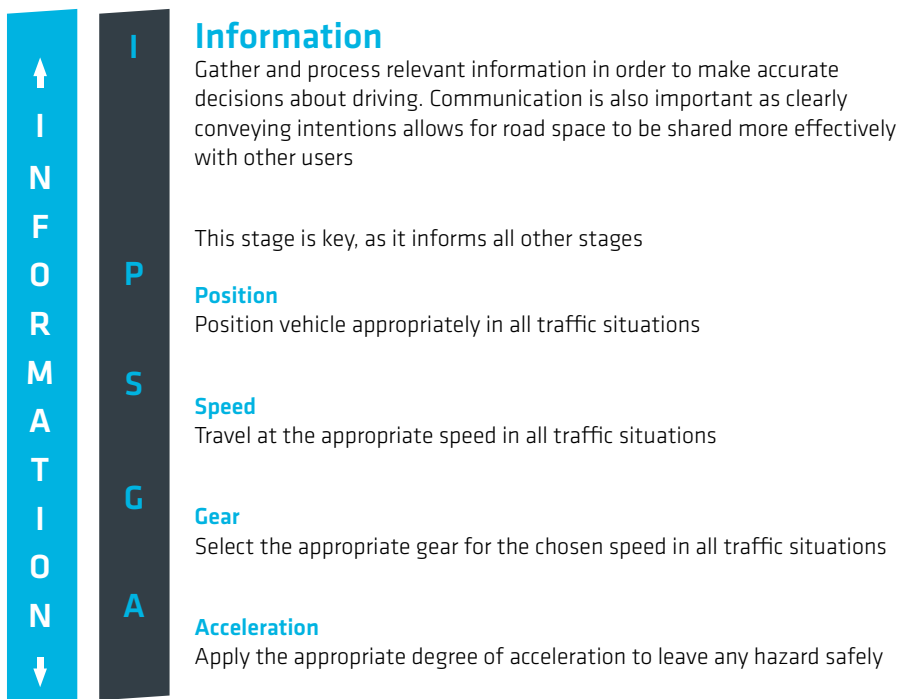
The purpose of IPSGA is to promote safety and prevent collisions by encouraging drivers to adopt a systematic approach to any hazard. In this case, a hazard is 'anything which contains an element of actual or potential danger'

With the exception of 'Human Factors', IPSGA runs like a spine through the entire Advanced Driving course. It promotes careful observation, accurate anticipation and planning (OAP), good communication with other road users and the smooth application of a vehicle's controls. A driving plan is made on a combination of what can be seen, what cannot be seen and the circumstances that can reasonably be expected to develop

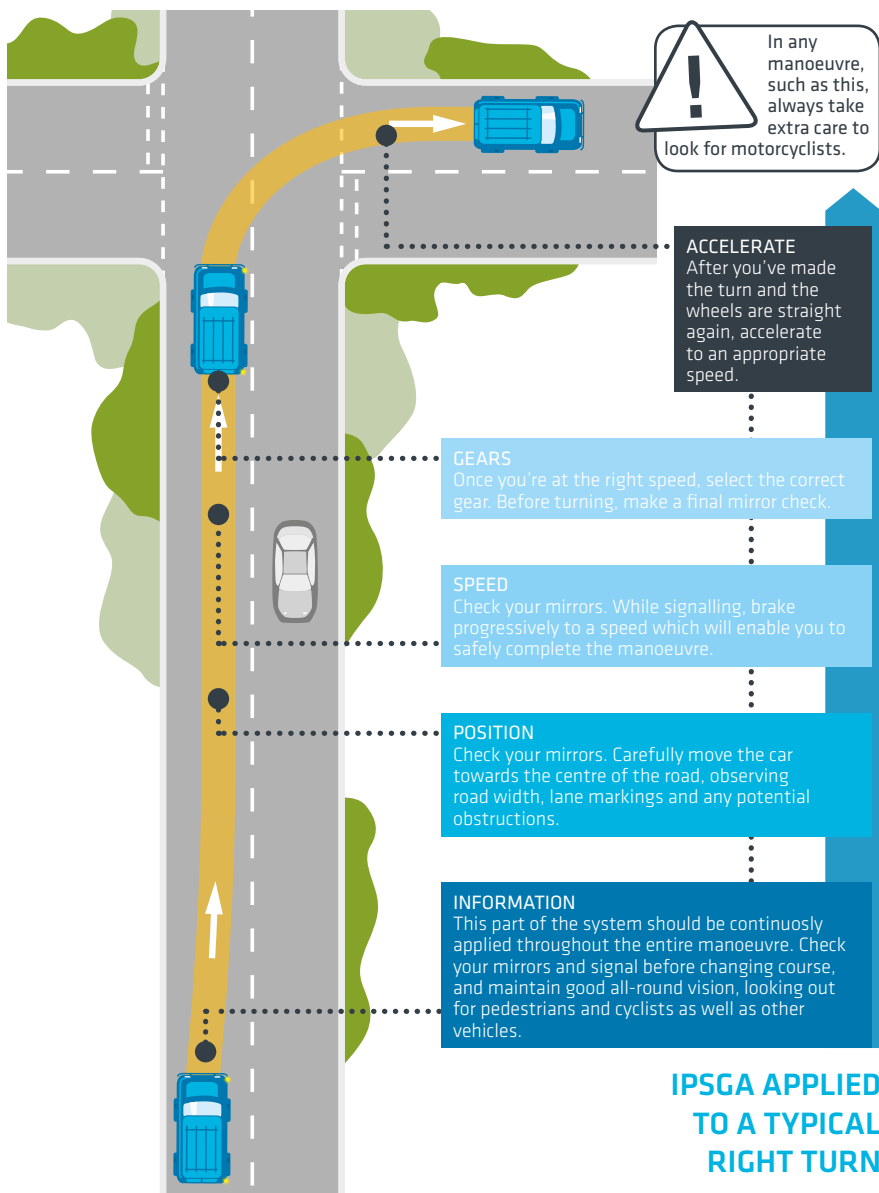
These are qualities that any advanced driver should be able to demonstrate. More detail on each stage follows

In summary:

On approach to any hazard, each stage of IPSGA should be considered in sequence. As circumstances change and new information becomes available, the system can be revisited at the appropriate stage.



Using IPSGA on a right hand turn



Information

There are three aspects to effectively gathering information and communicating well with other road users:

TAKE information

USE information

GIVE information

TAKE information

Advanced drivers should:

- **Look all around, scanning to the front and sides of their vehicle**
 - The further they project their vision, the more information they will gather
- **Consistently use their mirrors and check into potential blind spots**
 - Mirrors should be used throughout the IPSCA stages. Checks should also be used to eliminate blind spots
- **Look for information given by other road users**
 - Where possible, make eye contact with other drivers to assist in communication, as well as looking at the position of other vehicles
- **Gather visual information from a number of sources**
 - For example, manure on the road may give early warning of horses in the area, and fresh mud on the road may indicate a tractor ahead
- **Make good use of other senses**
 - For example, the smell of diesel may identify a slippery road surface
 - The sound of a car horn may give warning of an as yet unseen hazard just as a siren will signal the presence of an emergency vehicle

USE information

Advanced drivers should:

- **Use the information gathered to plan how**

to deal with identified hazards

- **Prioritise hazards to stay safe**
 - Which hazard is closest, which presents the greatest risk. Deal with the most important first
- **Make observational links to anticipate how their driving might be affected**
 - For example, 'The bins are out = I'm expecting to see the collection lorry = I am planning to deal with that'
 - 'Church steeple in view = I'm approaching a village = I should limit my speed'

GIVE information

Advanced drivers should:

- **Reinforce the information given by their vehicle's position and speed with accurate signalling**
 - If any other road user will benefit from a signal, it should always be given - clearly and in good time
- **While a signal alone may not convey a driver's intention, it can prove useful alongside other factors, such as a change in road position and/or speed**
 - It's also important to remember that signals can be misinterpreted, for example, a flash of headlamps could be interpreted as a warning or an invitation
- **It is important to check mirrors before signalling and recognise that giving a signal does not also give the right to carry out their intended manoeuvre**
 - Certain road users fall into the vulnerable category. Be particularly mindful of cyclists, horse riders and pedestrians and keep them safe with timely accurate communication
- **Be aware that following traffic will not always share their level of awareness**
 - It may be necessary to show brake lights to other vehicles even when slowing

down using acceleration sense

- This is an excellent example of how through observation, anticipation and communication, advanced drivers can help to keep other road users safe
- **Make eye contact with other drivers to assist in communicating their intentions**
 - this is also a good way to TAKE information
- **Use other communication methods, such as sounding their horn or flashing their lights only when it's appropriate to let other drivers know they are there**

Position

Positioning a vehicle accurately on the road reduces the risk of a collision. However, the ideal position will vary according to specific circumstances, such as road layout, surface and traffic conditions

Advanced drivers should:

- **Always consider safety first**
 - Do not relinquish safety for any other perceived advantage
 - Position to see and be seen
- **Be aware of potential hazards on both sides of their vehicle**
 - To the nearside – cyclists, pedestrians, parked vehicles and their occupants are all examples of who and what might present a hazard, as are other drivers pulling out of junctions
 - To the offside – there is potential conflict with oncoming traffic
- **Assess their speed when moving to the nearside or the offside**
 - For example, when it isn't possible to allow a door-width of room when passing a parked car, drivers should slow down so they have time to react if a door were to open

- **Be particularly aware of cyclists and motorcyclists when adopting their position**



Good advanced drivers observe, anticipate and plan ahead, effectively creating a safe working space or flexible "safety bubble" around their car

- For example, they may be unseen to the nearside or filtering past on the offside
- **Position themselves at least two seconds behind any vehicle they are following**
 - This allows enough time to respond if the vehicle ahead slows down. It gives them better vision beyond it, and enables them to develop an overtake, if appropriate
- **Take up the appropriate position for turning, depending on the size of their vehicle, the road width and layout, and other traffic**
 - To turn left – advanced drivers should usually position themselves in the centre of the left hand lane on the approach to a junction
 - To turn right – advanced drivers should usually position themselves towards the centre of the road, paying particular attention to oncoming traffic. If in any doubt, they should stay away from the centre white line
 - When stopping behind other traffic – advanced drivers should use the 'tyres on tarmac' guide
- **Drivers should stop far enough back that they can move around the vehicle in front without reversing**
 - As a guide, this is a point where they can see the wheels of that vehicle meet the road (hence tyres on tarmac). This will also prove safer if they are struck from behind

Optimum positioning for bends and corners, and when overtaking, is dependent on a number of factors. These are discussed in detail in later sections of this document

Speed

For the purpose of IPSGA, the correct speed is 'the speed required to negotiate the hazard safely'. As with all stages, this is influenced by the information gathered plus other factors such as the vehicle type, the road, weather and traffic conditions

Advanced drivers should:

- Recognise that the speed phase of IPSGA is not about making progress but adjusting to a safe entry speed for the hazard
- Continually assess the speed requirement and adjust it accordingly in relation to the changing information and priorities identified
 - For example, a damaged road surface or mud on the road demand a slower speed for safe entry to a bend than is normally required
 - Similarly, if there are vulnerable road users close to a hazard, drivers may need to further reduce their speed
- Smooth operation of the accelerator and brakes are essential qualities in an advanced driver
- The smooth and accurate progressive braking covered under core driving skills is desirable as it allows for safe speed reduction

Gear

Accurate use of the gears allows an engine to deliver the required performance in all situations

Advanced drivers should:

- Develop sound knowledge of the performance of their vehicle in each gear
 - So it becomes easier to choose an appropriate gear and to know when a gear change will be needed
- Engage the correct gear for the speed they are driving now, while taking account of what may be required in the immediate future
 - i.e. to select a gear with sufficient flexibility to allow for speeding up and slowing down
 - Consider other factors, such as fuel economy, vehicle sympathy (not over-revving or allowing the engine to labour) and the amount of acceleration required
- Conduct gear changes in a smooth steady manner
 - In a manual vehicle, advanced drivers should be capable of changing to their chosen gear without using an intermediate gear. This is termed block changing
 - Operate an automatic gearbox appropriately
- When required they should match engine revs to road speed

Acceleration

For the purposes of IPSGA, acceleration is mainly concerned with the driver's ability to leave any hazard safely

Advanced drivers should:

- Assess a number of factors when deciding on the amount of acceleration they need to apply

- The correct degree of acceleration will allow for safe unobtrusive progress. To achieve this, it's important to take all of the limiting factors into account
 - For example, the speed limit, the condition of the road surface, grip and weather conditions
 - The proximity of the next hazard
- Understand that advanced driving isn't about making maximum progress; it's about making the level of progress required for the particular journey safely in the given conditions

The use and timing of IPSGA is paramount in achieving the above

Competency sheet - IPSGA and timing of IPSGA

	Achieved
Applies IPSGA appropriately	
Times IPSGA correctly	



Human Factors

This section refers to the Associate, their vehicle, their journeys and lifestyle in relation to becoming an advanced driver.

As it relates more to the person than the act of driving, it is the only component not framed by IPSGA.

Competency sheet -

Human factors

This page gives an overview of the competency requirements for this section.

	Achieved
The Driver	
Puts safety first in all driving judgements	
Remains calm and considerate of others at all times	
Always maintains concentration while driving	
Manages any external influences and distractions	
Changes their plans if any factor is likely to impair their performance or decision making	
Consistently evaluates their own performance, with a view to retaining and developing their skills	
Applies new found knowledge in order to improve their driving performance	
The Vehicle	
Conducts pre-drive checks correctly and ensures that vehicle maintenance is up to date	
Knows the performance and features of the vehicle being driven. Can conduct a cockpit drill	
Understands the purpose of and conclusions from a moving brake test	
Recognises the issues when driving an unfamiliar vehicle	
The Journey	
Understands that the purpose of their journey and time available may influence their driving and decision making	
Understands that route choice and planning will influence the way they drive	
The Wider World	
Considers the range of influences that may impact on their driving	
Understands how attitude to risk may affect driving choices	



The Driver

There are a number of personal qualities or behaviours that any advanced driver must demonstrate

- **To put safety first in all driving judgements**

- No journey is so important that safety can be compromised; advanced drivers should never put themselves or others in harm's way

- **To remain calm and considerate of others at all times**

- Advanced drivers are always aware that their decisions and actions may have an effect on other people
- They recognise that the road-space needs to be shared and that this is most successfully achieved when everyone communicates and cooperates
- As well as complying with legislation and the Highway Code, they should set a good example to other road users

- **To always maintain concentration while driving**

- Concentration can be defined as:

The full application of mind and body to a particular endeavour to the exclusion of everything not relevant to that endeavour

- Advanced drivers should be able to focus on their driving while disregarding any unrelated factors
- They should be able to manage driving related tasks, such as identifying road junctions

- **To manage any external influences and distractions**

- Advanced drivers must remain in charge and not be negatively influenced or distracted by friends or passengers
- Recognising these influences and

distractions is the first step to successfully overcoming them

- As hands-free telephones have a detrimental effect on concentration, despite being legal and commonplace use is discouraged

- Advanced drivers should always pull over somewhere safe if they need to answer a call

- **To change their plans if any factor is likely to impair their performance or decision making**

- Advanced drivers must be aware of any physical influences that might impair their decision making and ability to drive safely

- For example, if they start to feel tired or experience physical discomfort while driving, they should consider whether they are still able to concentrate fully

- Similarly, if they feel angry, frustrated, anxious or frightened, they should:

- In the short term - find somewhere to stop safely and try to deal with those outside influences

- In the longer term - use the experience to develop new methods for managing the influences prior to driving

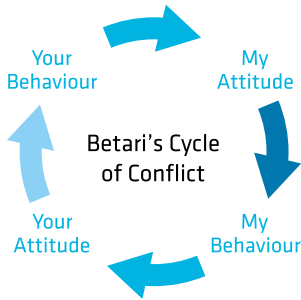
- **To consistently evaluate their own performance, with a view to retaining and developing their skills**

- The IAM RoadSmart approach to driver development seeks to encompass all of the components necessary to produce safe, well-rounded drivers. It encourages self-reflection as a means to develop as an advanced driver

- A mistake can often be defused with just an apologetic wave

- Advanced drivers should always assess their vehicle control and driving performance as if through the eyes of a third party. (see picture showing Betari's Cycle of Conflict and how attitude and behaviour are affected)

- Other factors to consider include the time of day, the route and any potential negatives, such as tiredness, stress, the effects of prescription medication and traffic conditions
- In terms of the bigger picture, advanced drivers should also have an understanding of how driving fits into their lifestyle and life goals
- **To apply new-found knowledge in order to improve their driving performance**
 - Advanced drivers are constantly learning and developing. They should always use any new-found knowledge to improve their driving performance



How a driver's attitude affects their own behaviour and the attitude and behaviour of other drivers

The Vehicle

There are certain key actions that any advanced driver must take in relation to their vehicle:

- **To conduct pre-drive checks correctly and ensure that vehicle maintenance is up to date**
 - Advanced drivers should have an ordered approach to checking their vehicle
They should undertake that check to a high standard, remembering that the primary concern is always safety
 - Given that many modern vehicles have extended maintenance intervals, they may clock up a lot of miles/time between services. It is therefore important to adhere to their service schedules
 - Even the most sophisticated checking systems will not detect every problem so visual inspection is still required
If any doubts arise, advanced drivers should have their vehicle checked by a professional
- **To know the performance and safety features of their vehicle – and have the ability to conduct a cockpit drill detailing them**



- They must be aware of their vehicle's capabilities in order to remain safe and legal
- Maximum appropriate acceleration will vary considerably from vehicle to vehicle
- They should be aware of the safety features and aids fitted to their vehicle, and be prepared to explain them
 - For example, when starting their vehicle, they should know which warning lights should come on - and when they should go off
- They should also know when to stop and investigate if a warning light comes on during a drive, i.e.:
 - If it is red - as soon as it is safe
 - If it is amber - the next time they stop
- Advanced drivers should also be able to demonstrate sound knowledge of the gearbox fitted to their vehicle
- **To understand the purpose of and conclusions from a moving brake test**
 - While a modern vehicle may display a warning light in the event of a brake failure, the effect of an obstruction or other outside influence won't be monitored
 - Advanced drivers should be able to conduct a moving brake test at a low speed in order to safely assess that the vehicle pulls up evenly on all wheels with no adverse effect on the steering
 - They should be aware if the braking system makes any untoward noises
 - They should also know the required pressure on the pedal to slow and stop their vehicle - and be aware of the performance of their tyres in the given conditions
- **To recognise the issues when driving an unfamiliar vehicle**
 - Advanced drivers should always be prepared to conduct a cockpit drill to get to grips with an unfamiliar vehicle and any features which may affect the way they drive it

The journey

There are certain important factors that advanced drivers must be aware of in relation to their journey

- **That the purpose of their journey and the time available may influence their driving - and their decision-making**
 - Advanced drivers must always consider the purpose of their journey - and whether it is likely to change
 - For example, an observed drive may, on conclusion, become a drive to visit friends or to pick-up children, so priorities may change
 - Similarly, they must be aware that if time is short, that may become the focus of their concentration and affect their decision making process and attitude towards other drivers
 - For example, they should not become less willing to share space nor more aggressive in their communication
 - By recognising these changes at an early stage, an advanced driver can manage them effectively
- **That route choice and planning will influence the way they drive**
 - Advanced drivers should consider their knowledge of the route and the possible effects of how they choose to get there
 - For example if the bypass is closed and they have to go through the town centre unexpectedly; how might that affect the way they approach the drive. If they are relying on Sat Nav and it fails can they deal with it

The Wider World

Driving doesn't happen in a vacuum; it is part of life. Advanced drivers should therefore be aware of the possible impact other lifestyle factors may have on their driving. In particular, they should:

- Consider the range of influences that may impact on their driving
 - For example, whether their peer group's view of how to behave on the road differs from that of a careful and competent driver
 - How peer group pressure might influence their attitudes and behaviour when driving
- Understand how attitude to risk may affect driving choices
 - Similarly, what is their focus if they are a commercial salesperson on route to their next meeting? Or a delivery driver under pressure to complete their round
 - A thrill-seeking, try-anything-once approach to life can easily translate into risk-taking behaviour on the road; something which is unacceptable in an advanced driver
 - To counter this risk, advanced drivers should:
 - Pause to consider the negative consequences of any risk-taking behaviour
 - Effectively manage any behaviour that may lead to inappropriate risk taking



Human Factors

Hints and Tips

Observer Aims

To provide the Associate with the necessary knowledge, understanding, skill and attitude to handle the different emotions, attitudes and skill of themselves and other road users

Objectives for the Associate

1. Understand themselves
2. Conduct vehicle checks
3. Discuss factors related to the journey
4. Understand the effects of the external world on their driving

Explain

The IAM RoadSmart approach to Human Factors

"An IAM RoadSmart Driver" shows how we need to consider all the influences on a driver

Why all the elements are important and how they mix together to achieve an IAM RoadSmart Driver

Driving on today's roads takes not just about skill but a certain amount of behavioural techniques to communicate well with other road users too

Importance of Vehicle Checks

Show me Tell me questions are a good way of explaining these



Understanding the impact of Human Factors



A driver who has a higher level of skill in vehicle control but lacks other areas of IAM RoadSmart mental approach to driving will not make an IAM RoadSmart Driver



Partially understanding the merits and expertise of making an IAM RoadSmart driver and asking self evaluating questions puts the Associate well on the way of achieving their goal



An IAM RoadSmart driver takes into account all four of the Human factor areas of driving, being an advanced driver is not just about the skill involved in vehicle control. Once achieved, the Associate will be a well-rounded driver

Encourage your Associates to reflect on their driving and use their experiences to improve. Self-evaluation and asking questions of one's own driving often leads to improvement in the future

When Associates first learnt to drive they would have started with vehicle control and with practice they developed their skills and muscle memory. Once they had mastered the basic skills they were able to concentrate on traffic situations and reacting accordingly

One of the main things to think about here is that when we get into a vehicle we are not a blank canvas: We bring our beliefs, life experiences and personalities into the driving seat with us. All of these different aspects influence how we drive a vehicle

The Driver

How we are as humans can impact upon the way we drive. The way we behave, our emotions, attitude, mood and how tired we are all affects our driving and behaviour

The Journey

Every journey we make has a reason behind it, whether we are going to work or driving to the local shops we are able to

justify our journey: however, do we always think about the best time to make the journey and allow additional time or do we judge journey time by the minimum time to get somewhere

The External world

Understanding external influences and managing them effectively is crucial in safe driving. Communicating with others and anticipating their actions takes skill and concentration. Situational awareness is crucial in becoming an IAM RoadSmart driver.

The Vehicle

Knowing your limitations as a driver is one thing but how often do we 'assume' our vehicles are capable of the journey we are taking them on? Checking the condition of our vehicles and knowing their limitations are just as important as knowing our own limitations

The six competencies framed by IPSGA

This section looks in detail at what's required of an advanced driver in each of the following six areas:

- Core Driving Skills
- Bends and Cornering
- Roundabouts
- Overtaking
- Motorways and Dual carriageways
- Manoeuvring

Competency sheet -

Core Driving Skills

This page gives an overview of the competency requirements for this section.

Information	Achieved
Demonstrates early and accurate identification and anticipation of hazards by raising and expanding vision	
Checks the appropriate mirrors before altering their position or speed	
Through observation, is aware of how other road users may affect decisions	
Uses all appropriate signals to communicate with other road users	
Position	
Holds the steering wheel in a way that allows for a full and accurate range of movement	
Demonstrates a smooth steering action which allows for easy use of the other controls	
Steers the vehicle accurately to maintain a stable, safe and appropriate course with the capacity to change direction, if required	
Speed	
Demonstrates smooth acceleration, deceleration and accurate use of 'acceleration sense'	
Demonstrates smooth and accurate braking	
Holds the steering wheel with both hands during braking/accelerating	
Gear	
Demonstrates an ability to select the correct gear on every occasion	
Makes all gear-changes smoothly, matching engine revolutions where appropriate	
Positions the steering for the required course when a gear change needs to be made in a hazard	
Manual vehicles - selects the correct gear straightaway	
Automatic vehicles - uses the vehicle's gear selector to best advantage	
Acceleration	
Accelerates smoothly when vision and speed limits permit	

Core Driving Skills

Core driving skills are those required to operate a vehicle's controls with a degree of finesse. For example, the ability to change gear in a smooth and timely fashion, to steer accurately and to accelerate with due consideration.

The overall impression should be of a careful and competent driver who is relaxed and in control.



Information

Advanced drivers must be able to:

TAKE information

- **Demonstrates early and accurate identification and anticipation of hazards by raising and expanding vision**
 - Lift vision and look in all directions for early signs of potential problems
 - On identifying a hazard plan to deal with the situation
 - Remember, planning for the worst scenario can help a driver to deal with it safely
 - Use their mirrors to link information on the hazard to what's happening behind
- **Check the appropriate mirrors before altering their position or speed**
 - Before slowing check appropriate mirror
 - To move out, check offside mirror
 - To move in, check nearside mirror
 - Use blind spot checks, whenever needed

The overall aim is to maintain a safe operating space or 'safety bubble'

USE information

- **Through observation, be aware of how other road users may affect their decisions**
 - Always check both ways at junctions
 - At roundabouts be aware of danger to the right, and of other traffic entering the roundabout at speed
 - Be aware of responding emergency vehicles
 - Give extra space to vulnerable road users such as pedestrians, cyclists, motorcyclists and horse riders
- Advanced drivers should always be prepared to share or give up space for safety

GIVE information

Use all appropriate signals to communicate with other road users

- Be aware that vehicle position assists communication
- Give signals in a timely fashion to communicate intentions
 - Indicators, brake lights and even arm signals if required
- Look at the other drivers not just at the vehicles to communicate
- Only use headlamps or horn to alert another road user to your presence - never as a rebuke



Position

Advanced drivers must be able to:

Additional points on positioning for specific hazards such as bends and roundabouts can be found in the relevant sections of this document

- **Hold the steering wheel in a way that allows for a full and accurate range of movement**
 - Maintain a light grip, ready to exert a tighter grip if required
 - Keep arms slightly bent to prevent accidental movement of the steering wheel
- **Demonstrate a smooth steering action which allows for easy use of the other controls**
 - Use a steering method that is comfortable and allows for a full range of movement with little physical effort
 - Pull-Push steering enables safe and efficient use of other controls
 - Fixed grip steering is an option for smaller movements of the wheel as long as the arms don't cross
 - Advanced drivers should also be aware that a comfortable seating position is important for accurate steering
- **Steer the vehicle accurately to maintain a stable, safe and appropriate course with the capacity to change direction, if required**
 - Advanced drivers should be aware that the type of vehicle, any power assistance and the mechanical set up may influence their steering method
 - A straight course should require little or no steering input
 - Positive inputs will be required to substantially alter their position or turn their vehicle

- Accurate and consistent outcomes are the most important factor



Observer Note

If the Associate steers in a way that allows for smooth and accurate course selection, with the ability to operate ancillary controls accurately at all times, then it is acceptable for test. If there is a problem in any area, then the Pull Push method should be encouraged

Speed

Advanced drivers must be able to:

Acceleration sense is the ability to vary vehicle speed in response to changing road and traffic conditions by accurate use of the accelerator, so that you use the brakes less or not at all. It requires active observation, anticipation and planning for it to be used correctly

- **Demonstrate smooth deceleration and accurate use of 'acceleration sense'**
 - A vehicle begins to slow as soon as the accelerator is released. If this is done in a controlled fashion, it will help to maintain stability
 - In lower gears, the effect is more noticeable; similarly regenerative braking systems in hybrid vehicles will further increase the retarding effect
 - In addition to using acceleration sense, they should also be aware that their brake lights may be needed to communicate in certain circumstances
- **Demonstrate smooth and accurate progressive braking**
 - Gentle pressure on the pedal to settle the vehicle onto its front suspension
 - Firmer braking to lose speed, as required
 - A gentle release of pressure to allow the suspension to resetttle

Although described in three stages, care should be taken to ensure a smooth, progressive and seamless transition
- **Hold the steering wheel with both hands during braking/accelerating**

- Hold the wheel with two hands whilst accelerating or braking to retain stability
This will help prevent accidental changes in course
- In the latter stages, at very slow speed, it is acceptable to release the wheel to engage a suitable gear, e.g. 'a rolling first gear'

Gear

Advanced drivers must be able to:

- **Demonstrate an ability to select the correct gear on every occasion**
 - Gear changes need to be smooth and accurate at all times
- **Make all gear-changes smoothly, matching engine revolutions where appropriate**
 - Employ a rev on the down change or sustained accelerator pressure to match engine revs to road speed, if necessary, to achieve a smooth gear-change
 - Recognise when this isn't required, for example when selecting a rolling first



gear or when road speed is very low

- Understand when a planned overlap is appropriate
 - At slow speeds for simple junctions it will be safe to overlap brakes and gears. The gear change needs to be finished and the clutch engaged before steering
- **Position the steering for the required course when a gear change needs to be made in a hazard**
 - For example, select a gear with the steering set for the required course on a roundabout

The steering position should be held constant while gear is selected

Manual Vehicles

- **Select the correct gear straightaway**
 - Advanced drivers should know the approximate performance of their vehicle in each gear
 - Preferably they should be able to select any gear without engaging an intermediate gear (block changing)
- This is an option, rather than an ongoing requirement



Automatic Vehicles

- Know how to use automatic gearbox
 - Be aware how to to correctly select gears using either paddles or gear selector
 - Be aware of additional functions and modes

Acceleration

Advanced drivers must be able to:

- Accelerate smoothly when vision and limits permit
 - Apply the correct degree of acceleration to leave the hazard safely
 - Acceleration should be brisk and business-like, with due regard to speed limits, weather and traffic conditions
 - Allow sufficient time to gather information for the next hazard requiring IPSC application



Core driving

Hints and Tips

Observer Aims

To provide the Associate with the necessary knowledge, understanding, skill and attitude to drive safely using the IPSGA

Objectives for the Associate

1. Demonstrate how they observe, anticipate and plan for hazards
2. Demonstrate how they use appropriate signals to communicate with other road users
3. Demonstrate understanding and application of the system
4. Demonstrate smooth and accurate operation of controls

Explain

What do we mean by core driving skills

Core driving skills are the skills required to operate a vehicle's controls with the high degree of finesse required to be an IAM RoadSmart driver

Why do we use IPSGA

The IPSGA system of car control is a trusted and effective method of creating time to negotiate a hazard safely

How the information phase is broken down into TUG

Take – Use – Give information

Demonstrate using Observation Anticipation and Planning (OAP) as part of their driving

By developing observation, anticipation and planning skills the Associate is able to identify hazards at the earliest opportunity and therefore have more time to plan what to do

Taking information

The Associate needs to demonstrate their ability to take information in. All round scanning is where most of the information will come from, however encourage the Associate to use other senses i.e. country smells, hearing sirens, feeling any abnormalities with the steering

Using information

The Associate will gather the information taken and decide what they are going to do.

Using the information to link possibilities - i.e.

- On hills a cloud of exhaust smoke from an HGV suggests that it may be changing down a gear to cope with the hill

- A cluster of lamp posts may indicate a roundabout

- A single lamp post may indicate a junction opposite it

Giving information and communicating

The Associate needs to show how effective and timely signalling assists with the communication of their intentions - i.e. indicators, brake lights, arm signals signals where appropriate. IAM RoadSmart drivers need to demonstrate how the position of their vehicle assists with the communication between them and other road users. Making eye contact may help in the communication being two-way rather than the Associate just giving information

Understanding the System



Thinking of the information phase as just one stand alone part of the system should be avoided

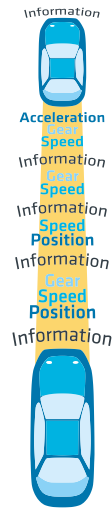


The system should be considered in sequence and the appropriate feature visited



The information phase of the system runs throughout and feeds into all the phases

All phases should be considered on approach to every hazard



Position

IAM RoadSmart drivers need to demonstrate how the position of their vehicle assists with the communication between them and other road users. The Associate needs to show how they decide their road position based on safety, what they can see, the road layout and traffic conditions. The position of a vehicle helps to communicate the driver's intentions. Road hazards the Associate may have to change position for include: Parked vehicles, Vulnerable Road Users and Concealed Entrances

Speed

The Associate needs to choose a speed that is within the legal restrictions of the road and be able to maintain a distance they can stop in safely. The stopping distance is divided into thinking and braking distance. Discuss the 'two second rule' as a way of maintaining the correct distance between them and the vehicle in front

Smooth acceleration gives a comfortable drive and reduces stress on the vehicle.

Your Associate needs to avoid jerky movements on the accelerator. Good acceleration sense means the Associate will be able to vary the speed of the vehicle and respond to changing conditions without having to resort to using the brake pedal unnecessarily

Gear

To be able to ensure the car responds correctly, the Associate needs to be in the appropriate gear. They need to understand the working range for each gear and be able to use the gearbox either auto or manual

Acceleration

The Associate needs to decide on the correct speed to negotiate the hazard safely and then apply acceleration to leave the hazard safely

Tyre grip trade-off

A vehicle's tyre only has a certain amount of grip used either for steering, acceleration or braking. Careful braking and accelerating leave plenty of grip available for steering

Competency sheet -

Bends and cornering

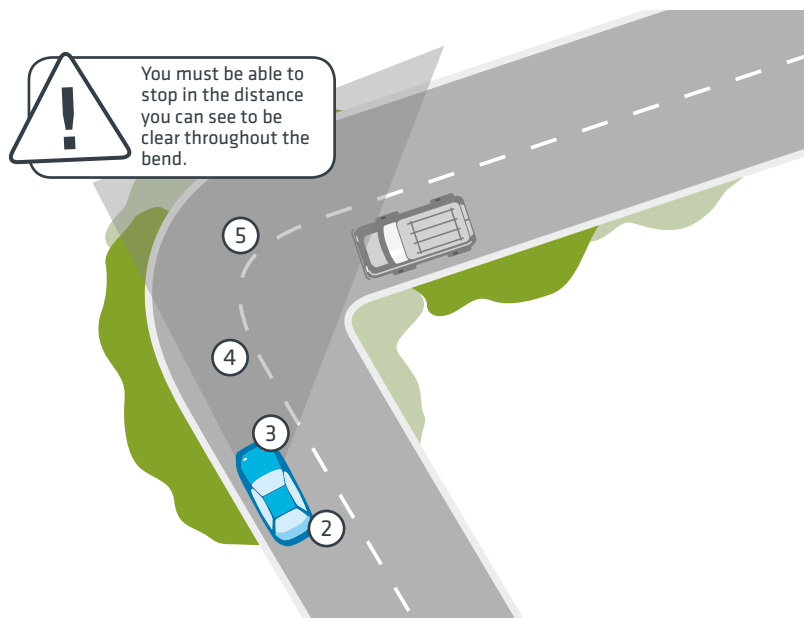
This page gives an overview of the competency requirements for this section.

Information	Achieved
Actively scans the road to the limit point in the distance and back	
Builds awareness of other road users' position and activity	
Position	
Positions correctly on the approach to a corner: In a right hand bend – towards the nearside In a left hand bend – towards the offside	
Positions correctly throughout the bend without compromising safety	
Speed	
Uses the limit point correctly and is able to stop within the distance seen to be clear on their own side of the road	
Uses appropriate speed to negotiate the bend safely	
Gear	
Selects and engages the appropriate gear for the speed and circumstances	
Engages gear before steering in a manual vehicle	
Acceleration	
Maintains appropriate accelerator application to retain stability	
Accelerates to an appropriate speed in relation to hazards	

Bends and cornering

Safely negotiating bends and corners requires an awareness of the road ahead, for example, to ensure there is sufficient space to stop within the distance that is seen to be clear.

By using limit points and looking across the bend for hazards, advanced drivers can enhance their vision. Whilst crucial, this must be balanced with other factors such as an awareness of the physical limits of grip when turning.



150 meters from the bend in the road and the Limit Point of Vision is moving towards you. Slow down.



You're 50 meters from the bend, when the LPOV is static, slow until it moves away.



40 meters from the bend. The LPOV is just starting to move away from you as the bend opens up.



You're right on the bend now. The LPOV is moving away from you, so you can consider accelerating.



Exiting the bend, the LPOV moves away from you. Accelerate with caution as the road drops away.



Remember you should apply the Limit-Point-of-Vision technique when approaching junctions as well as bends. The same rules are relevant for both driving situations.

Information

Advanced drivers must be able to:

- **Actively scan the road to the limit point in the distance and back**
 - By looking ahead and scanning back, advanced drivers give themselves more time to respond to the situation ahead
 - This scanning or visual sweeping should be a continuous process
 - By looking across a bend, advanced drivers can better plan how to deal with it
 - They may see other vehicles and/or further hazards
 - Similarly, hedge or tree lines and lamp posts, etc. may give an indication of the severity of the bend
- **Build awareness of other road users' position and activity**
 - Be aware of signs and signals
 - The more side profile they see of other road users appearing or disappearing through a bend, the sharper it is
 - The speed of other road users may also indicate the severity of a bend
 - If the vehicle in front is showing its brake lights, this may indicate a problem through the bend
 - They may need to change position or speed, or indicate to traffic behind that there may be a problem
 - The position of approaching road users may also indicate that a change of speed or position is required

Position

Advanced drivers must be able to:

Position correctly on the approach to a corner

- Safety must not be compromised when positioning for a corner
- Advanced drivers must be able to achieve the correct position smoothly, without destabilising the vehicle, generally:
 - In a right-hand bend - a position towards the nearside will usually afford a better view, but be aware of nearside hazards
 - In a left-hand bend - a position towards the offside of your lane will usually afford a better view. Be particularly aware of hazards from the offside and on-coming traffic
- The presence of other road users may affect position, either on the approach or through the bend
- Physical features such as junctions, or changes to road surface may also require a change of position
- In areas with lower speed limits, a more central position within the approach lane may be preferable as extreme positioning may cause confusion to other road users

Position correctly throughout the bend without compromising safety

- Where view permits, it may be safe to take a straighter line through a bend
- It may be possible to do this within the confines of one lane with no effect on other road users

It is worth noting that an Associate will not fail the advanced driving test for not adopting a straight line

- They must have an unobstructed view of the road surface and both edges, to be

certain there are no unseen hazards

- Mirrors and appropriate blind spot checks must be utilised before straightening a bend

If in doubt, do not straighten

Speed

Advanced drivers must be able to:

The limit point is the furthest point to which you have an uninterrupted view of the road surface as it disappears around a bend or over a brow. It is the point where the two edges of the road appear to meet. On a left hand bend you should treat this as where the left hand verge meets the centre line

- **Use limit point correctly and be able to stop within the distance seen to be clear on their own side of the road**
 - Utilising IPSCA correctly and matching the limit point on approach will indicate a safe speed at which to negotiate a bend
 - Adjusting speed in good time allows for the appropriate gear to be selected
 - Speed should be matched to the rate at which the limit point opens or closes, i.e. on approach to a bend:
 - When the limit point appears 'static' in relation to our approach the bend is sharp reduce your speed of approach to retain a safe stopping distance
 - When the limit point 'begins to move' this still requires you to adjust your speed and be able to stop in the distance you can see to be clear on your own side of the road
 - The limit point is matched when it appears to move away from us slightly quicker than our approach ensure your gear is correct and drive the bend

- On a left hand bend, the limit point is on the far side of the road and the stopping distance needs to be adjusted to the centre line

- **Use appropriate speed to negotiate the bend safely**
 - It is important to maintain vehicle stability and to be aware of any hazards when negotiating bends
 - It is necessary to continually reassess the limit point by scanning ahead, back and across the bend and to adjust speed as necessary



Gear

Advanced drivers must be able to:

- **Select and engage the appropriate gear for the speed and circumstances**
 - Advanced drivers must consider which gear will be both flexible and responsive, without causing the engine to labour or over-rev
- **Engage gear before steering in a manual vehicle (an automatic will self-select)**
 - Selecting the appropriate gear before steering helps to balance the vehicle through a bend
 - By looking ahead and planning, advanced drivers will be able to maintain the appropriate gear for future hazards
 - In an automatic allow time for the vehicle to engage the correct gear, or manually select it if appropriate

Acceleration

- **Maintain appropriate accelerator application to retain stability**
- Gentle accelerator application allows a vehicle to maintain speed and stability through the corner
- This may need to be varied, depending the severity of the corner and in light of changing circumstances
- **Accelerate to an appropriate speed in relation to hazards**
- Accelerate when improving vision and prevailing speed limits allow, taking into account any future hazards
- All acceleration needs to be made smoothly, without coarse adjustments



Bends and Cornering

Hints and Tips

Observer Aims

To provide the Associate with the necessary knowledge, understanding, skill and attitude to corner safely

Objectives for the Associate

1. Demonstrate safe cornering both LHB and RHB
2. Discuss the use of limit points when cornering
3. Discuss the four key principles of safe cornering

Explain

When a vehicle is most stable

A vehicle is most stable when travelling in a straight line on a level course and at a constant speed

What characteristics affect stability

Vehicle specifications, type of drive and any stability control

What the Tyre grip trade off is

The more grip is used for accelerating or braking the less there is for steering and vice-versa

A bend has an Entry, Middle and Exit

What information can be obtained through observations links?

Road signs and markings

Position, angle and speed of vehicles sharing the road including the angle of head lights at night. Are there any danger poles (red – left side of road, white – right side of road) or cats-eyes, trees, lamp posts, building lines, change in road surface (varying condition and type) or weather conditions

Will the camber affect the handling in the bend?

Crown Camber: centre of the road is higher than kerbs - (effect on steering is positive on LHB and negative on RHB)

Super elevation: Where the whole width of the road is banked up towards the outside edge of the bend making favourable for cornering in both directions

Positioning

Three elements to consider when deciding where to position the vehicle are Safety, Stability and Vision

Extending your vision to the furthest point and scanning backwards allows you to build an overall picture and then to paint in the immediate details

Limit Point Terms



Static = The limit point is not moving (The point where the two sides of the road meet is getting closer to our car)



Moving = the limit point is just moving but not as quick as you are (The point where the two sides of the road meet is moving away but not as quick as we are approaching.)



Matched = the limit point is matched (The point where the two sides of the road meet is moving away and we can stop in the distance we can see to be clear) on our own side of the road

Limit Point

The limit point is the furthest you can see along the road surface, where the nearside and offside verges appear to intersect the far side of the bend. It is a reliable method to apply if there are no wider views

Four Key principles of safe cornering

1) Correct Positioning

Getting the correct position for the bend makes a big difference to the information you Take and Use. It will allow you to choose the best entry point increasing the radius of your path – the entry phase is the busiest for the Associate

LHB - Towards the centre line however the IAM RoadSmart policy is not to teach off-siding to Associates. You must be aware of the impact of positioning on other road users.

RHB - Towards the near side kerb however be mindful of junction, physical features, road surface, weather conditions and other road users

2) Correct Speed

Use the limit point to judge the safe speed to drive around the bend and the

Associate should always be able to stop within the distance they can see to be clear on their own side of the road. If there is good lateral vision you should be able to see the road ahead for a greater distance—the tarmac limit point should be used for deciding the correct speed in these instances

3) Correct Gear

Allowing time for the system gives the Associate time to make a smooth gear selection and should be one that has the flexibility to both accelerate or slow down if circumstances dictate

4) Stop safely on your side of the road

The Associate should always be able to stop safely on their side of the road

If others have to react you should not be there!

Competency sheet - Junctions and Roundabouts

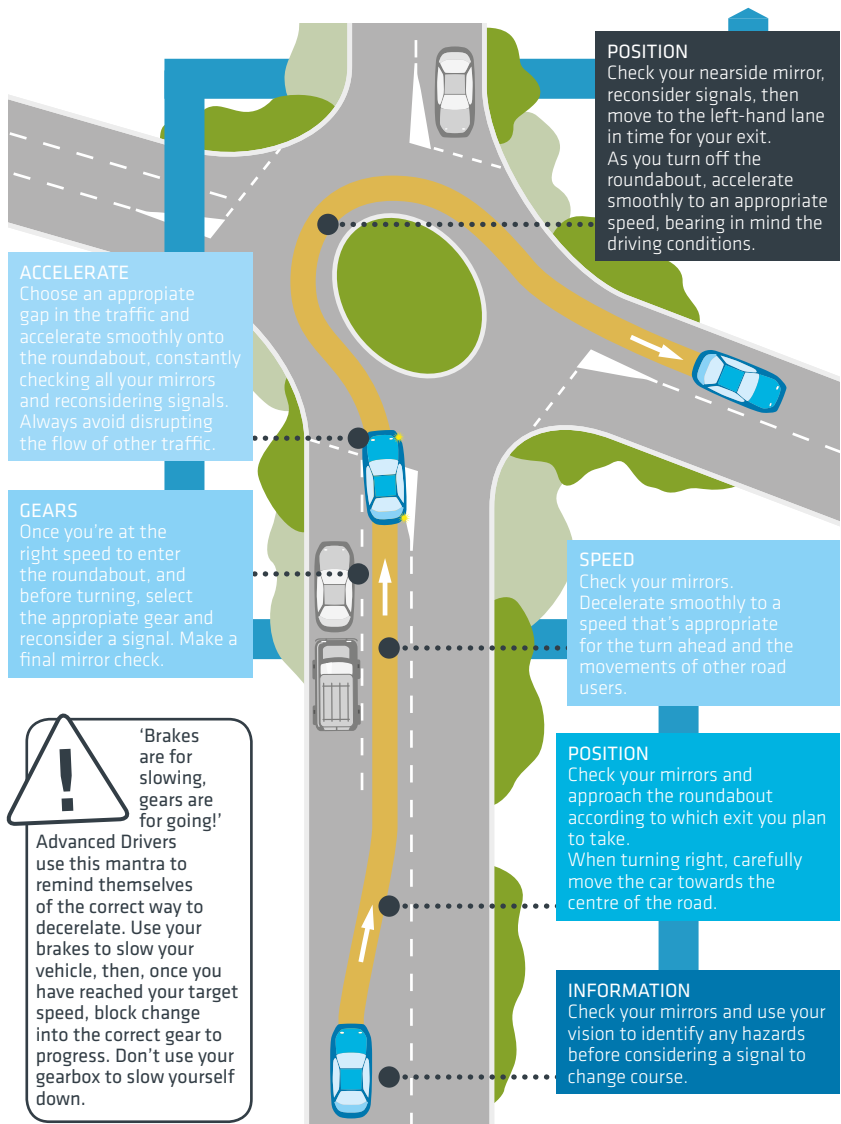
This page gives an overview of the competency requirements for this section.

Information	Achieved
Identifies the type of roundabout system they are approaching	
Monitors their speed and distance on approach	
Assesses the speed and position of other road users	
Identifies hazards and prepares for situations that may arise	
Identifies the best position to enter, negotiate and leave the junction	
Checks mirrors and blind spots before deciding on their actions	
Considers their signals prior to changing position	
Accurately identifies the first entry gap that it is safe to use	
Identifies the correct exit and looks for an early view into the exit road	
Position	
Adopts the appropriate position without causing others to alter course or speed unnecessarily	
Speed	
Accurately adjusts speed in relation to the physical features of the junction and traffic flow	
Gear	
Selects and engages the appropriate gear for the speed and circumstances	
Acceleration	
Maintains correct acceleration application on entering, negotiating and leaving the junction	

Roundabouts

Roundabouts are generally a complicated form of a junction. The principles for dealing with both are generally the same. Early vision and accurate information are what allow you to make your plan to stop or proceed with safety

When approaching a roundabout, the aim is to keep the car moving as long as it is safe to do so; an aim summed up in the phrase 'planning to stop but looking for information to go'.



Information

Information is crucial to safely negotiating a roundabout. There are therefore a number of skills and behaviours that advanced drivers should demonstrate

In summary, they must be able to:

- **Identify the type of roundabout system they are approaching**
- Signs on approach to a roundabout detail its size, the location and often the angle of the exits
- On a larger roundabout - traffic has priority when already on the roundabout
- On a mini roundabout - drivers should give way to traffic from the right, also giving priority to traffic closely approaching the roundabout
- A series of mini roundabouts should be assessed individually
- **Monitor their speed and distance on approach**
- Advanced drivers must monitor their speed on approach to a roundabout, especially if it is located at the end of a motorway or dual carriageway slip-road, or on a road where the national speed limit applies
- Allow time to gather the relevant information and make a suitable plan on approach
- Make appropriate decisions about whether to give way or take precedence. If in doubt, stop
- Planning to stop sometimes allows sufficient time for an advanced driver to gather information and proceed safely without stopping
- Take care to signal correctly so as not to mislead other road users
- Remain vigilant, never assuming that other road users' signals are accurate
- **Assess the speed and position of other road users**
- Scan all road user movement to anticipate intentions and make appropriate decisions on whether to give way or take precedence
- Having entered the roundabout, remain aware of traffic joining from other entry points
- If a junction has approaches with limited vision in any direction, be prepared to slow down or stop in order to gain information before entering the roundabout





- **Identify hazards and prepare for situations that may arise**
 - Use visual clues to predict possible hazards and prepare for situations that may arise
 - Prioritise response to any hazard in a safe, controlled manner
- **Identify the best position to enter, negotiate and leave the roundabout**
 - Use the information gathered to make the right plan to deal with entry to the roundabout, route around it, and exit
- **Check mirrors and/or blind spots before deciding on other actions**
 - Make effective use of mirrors and check blind spots before taking actions, such as:
 - Changing speed, lane or direction
 - Choosing whether or not to use signals
- **Consider their signals prior to changing position**
 - Apply signals in good time, taking care not to mislead or confuse other road users
- **Accurately identify the first entry gap that it is safe to use**
 - By timing arrival correctly, it may be possible for advanced drivers to keep moving onto the roundabout
 - If it is necessary to rush into a gap, waiting may have been a better option
- **Identify the correct exit and look for an early view into the exit road**
 - Look to exit by using road signs, counting

other exits or using satnav instructions and position appropriately

- Look for an early view into the exit route to put a plan in place to deal with any hazard

Position

Advanced drivers must be able to:

- **Adopt the appropriate position without causing others to alter course or speed**
 - On identifying the type of roundabout, advanced drivers must decide what position to take for the chosen route
 - Within reason an early adoption of the correct position will be beneficial
 - A straight line may be taken through the roundabout if it is safe and no other road users are present
 - Check mirrors and/or blind spots prior to taking such a line
 - If there is any doubt as to whether safety will be compromised or confusion caused stay in lane
 - If traffic is queuing on entry to a roundabout advanced drivers must consider using the lane of least resistance. Be aware of any prohibiting road markings and don't cause confusion to other road users

Speed

Advanced drivers must be able to:

- **Accurately adjust speed in relation to the physical features of the roundabout and traffic flow**
 - Understand how the tightness of a turn, any positive or negative camber, and the

physical size and offset of a roundabout will influence speed

- Speed will also be influenced by other road users on, or likely to join, the roundabout
- Rushing into a gap but then having to slow down may cause problems for other road users

Gear

Advanced drivers must be able to:

- Select and engage the appropriate gear for the speed and circumstances
- Consider which gear will be both flexible and responsive, without causing the engine to labour or over rev

- Try to engage a gear suitable for the whole roundabout

- If a gear change is needed it should be done whilst the vehicle direction is fixed

Acceleration

Advanced drivers must be able to:

- Maintain correct acceleration application on entering, negotiating and leaving the roundabout
- Once the correct entry speed for the roundabout is achieved look to maintain or adjust it
- If conditions allow, increase speed and accelerate away from the roundabout

Each time you take to the streets in your car, you're facing a whole host of potential dangers. Check out this picture. It highlights the sort of risks you could face in your everyday driving.



Roundabouts

Hints and Tips

Observer Aims

To provide the Associate with the necessary knowledge, understanding, skill and attitude to negotiate roundabouts safely using the system of car control

Objectives for the Associate

1. Demonstrate early Observation, Anticipation and Planning when approaching a roundabout
2. Demonstrate safe entry onto a roundabout
3. Discuss the considerations of apexing
4. Demonstrate safe exit

Explain

The meaning of straight lining a roundabout
Straight lining is attempting to take a straight path across a roundabout, it can only be attempted where no other road user is going to be affected or confused

What characteristics are different at Mini Roundabouts

Mini roundabouts have a different road sign. They can be painted on the road and may be grouped together

How the road sign can help

Road signs often show the layout of the roundabout, assisting the Associate to plan their approach

How can an Associate demonstrate early Observation, Anticipation and Planning (OAP)?

Look at the sign to identify the required exit early, this will assist with deciding on the Associate's approach position. Lateral scanning will give an early view of traffic approaching from other roads and assist with Anticipation and Planning. On the approach to a roundabout the Associate may plan for overtaking opportunities on the exit side - some other road users may not be looking for a progressive exit from the roundabout. This may be dictated by the size and type of the vehicle being overtaken

Safe entry onto a roundabout

With the approach position and speed chosen, merge safely with other traffic already on the roundabout matching speed where appropriate. Select the correct gear for chosen speed while course is fixed. Scan for other road users entering from the left, stationary traffic ahead and vehicles cutting across the Associate's path. Make progress where vision, circumstances and speed limits permit



Straight lining



Never straight line a roundabout if it could cause confusion to any other road users including pedestrians



You must be able to see both kerbs and have good lateral vision



Reducing the tightness of the turn can help with stability, but must be conducted with all-round awareness and reinforced with mirror use before moving across lanes

Gaining an advantage

On approach to a roundabout plan to stop and look to go

Scan for new hazards such as diesel spills or differences in road surfaces that may affect the dynamics of the car

Exits off roundabouts are a common place for speed limit changes

Exiting a roundabout

Looking ahead and extending vision into the new road will help the Associate determine how they leave the roundabout. Mirrors should be used before a change of speed or position and a blind spot check should be considered. Indicate if other road users would benefit from this type of signal. Maintain lane discipline where there is a presence of other hazards

Mini Roundabouts

Mini-roundabouts should be approached in the same way as normal roundabouts. The Highway Code states that all

vehicles must pass around the central markings except large vehicles which are physically incapable of doing so

Mini-roundabouts naturally have less space to manoeuvre and less time to indicate your intentions to others. Before using these roundabouts for a U-turn consider the impact of this on other road users and beware of others doing this

Multiple roundabouts

Some complex junctions have a series of mini-roundabouts. The Associate should treat each mini-roundabout separately and follow the normal rules



Competency sheet - Overtaking

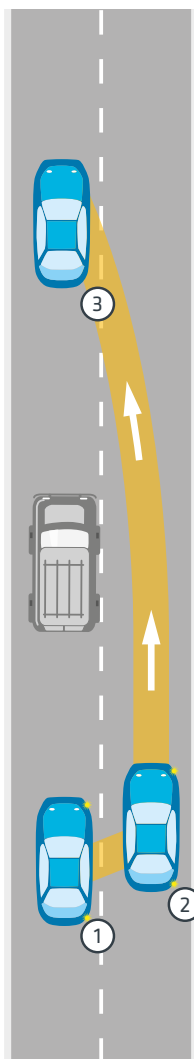
This page gives an overview of the competency requirements for this section.

Information	Achieved
Identifies a safe imminent opportunity to overtake	
Identifies a safe return gap	
Accurately judges the difference between their own speed and that of the vehicle[s] they plan to overtake	
Position	
Adopts the overtaking position - Stage 1	
Moves out towards the offside - Stage 2	
Allows a safe gap between vehicles - Stage 2	
Moves into the chosen return gap - Stage 3	
Speed	
Controls speed to safely complete the overtake	
Adjusts speed to safely return to the nearside of the road	
Gear	
Selects and engages the correct gear for their chosen speed and the prevailing circumstances	
Acceleration	
Applies the correct acceleration to complete the overtake	

Overtaking

At times, even a perfectly executed overtake within the speed limit can be seen as 'dangerous' by another party. In fact, overtaking is the area where drivers are most likely to come into conflict with another road user; either the driver of the vehicle being overtaken or the driver of another vehicle that witnesses the manoeuvre. Ask yourself whether any overtake you are about to attempt is really necessary and worthwhile. What's the point in exposing yourself to unnecessary danger to jump one or two places in a queue of traffic?

Advanced drivers must therefore be keenly aware of their actions - and how others perceive them.



1) The following position

The following position is a position that allows you plenty of time to react should the driver in front brake suddenly. Apply the two second rule

Adopt this position if you have no intention of overtaking, cannot do so imminently due to other hazards, or when prevented from doing so by solid white lines or no overtaking signs. In the absence of any other hazards, and if it is safe to do so, you can move directly to (3), the overtaking stage

2) The overtaking position

If you anticipate an opportunity to overtake, close in on the vehicle in front until you're in the 'overtaking position'. This is normally closer than the 'following position' and towards the centre line, increasing your view ahead

Match your speed to the vehicle in front and consider taking a lower gear to pass it

If the overtake doesn't develop, consider dropping back to the 'following position' and then start the whole process again

3) The overtake

When it's clear, move carefully to the other side of the road to increase your view. If the overtake is safe, accelerate quickly past the vehicle. If it's not, drop back behind safely and smoothly

The final part of the manoeuvre returns you safely back to your side of the road in as straight a line as possible

Consider using mirrors and/or a 'Blind Spot Check' to make sure that you do not affect the vehicle you have just passed

Information

Advanced drivers must be able to:

- **Identify a safe imminent opportunity to overtake**
 - When preparing to overtake, advanced drivers should look as far down the road as possible to check for hazards:
 - Read and respond to road signs and markings
 - Check hedges for any breaks in shadows that might signify an entrance
 - Be aware that any buildings will have entrances, and clear them as safe
 - Keep gathering information to decide if there is enough space to make the overtake safely
 - If in any doubt delay the overtake, hold back and re-assess
 - Use mirrors to link the developing potential of the overtake to the information behind and to the sides prior to committing
 - Advanced drivers must always be prepared to cancel the manoeuvre if circumstances change for the worse
- **Identify a safe return gap**
 - During a multi-vehicle overtake, an advanced driver must decide how many vehicles to overtake before committing
 - Identify a safe 'return gap' that will not affect other traffic
 - Bearing in mind that if the gap is likely to close, the overtake is not realistic
 - Be aware of any negative affect they may have on other vehicles
- **Accurately judge the difference between their own speed and that of the vehicle[s] they plan to overtake**
 - Accurately assess speed and position in relation to the speed and position of

the vehicle[s] to be overtaken and the distance to the next hazard

- Achieving a sufficient speed difference to overtake safely in the space available within the speed limit, must be realistic
- Never plan to exceed the speed limit, so if the other vehicle is travelling at close to the limit, recognise that overtaking may not be legal

Position

Advanced drivers must be able to:

Stage 1

- **Adopt the overtaking position**
 - Advanced drivers should already be positioned in a safe following position in line with Highway Code advice
 - When safe and appropriate, they should move into an 'overtaking' position, no closer than one second behind the car to be overtaken
 - They must be prepared to drop back if the circumstances change. Remaining in the overtaking position can cause the driver ahead to be distracted and to focus on their mirrors rather than the road ahead

Stage 2

- **Move out towards the offside**
 - When it is safe, advanced drivers should move out towards the offside, keeping vehicle stable and matching speed with that of the vehicle to be overtaken
 - They should continually update information and be prepared to abort if circumstances change as safety is paramount
 - From this position make the overtake when safe

- **Allow a safe gap between vehicles**
 - Advanced drivers must allow a safe gap between their own vehicle and the vehicle they are going to pass
 - If the road is too narrow, they should consider the likely reaction before starting the manoeuvre
 - If in any doubt, they should hold back and reassess
 - Be particularly aware of vulnerable road users
 - This safe gap also applies to parked vehicles

Stage 3

- **Move into the chosen return gap**
 - Advanced drivers must be able to move into the chosen return gap without causing other road users to alter course or speed
 - Complete the return to the nearside of the road in a controlled fashion
 - Avoid cutting in too close to the vehicle passed
 - If there are other vehicles in view, albeit some distance off, they should try to display clear intent that they are returning to their own side of the road

Speed

Advanced drivers must be able to:

- **Control speed to safely complete the overtake**
 - Maintain speed with the vehicle being overtaken until ready to commence the overtake
 - Adjust speed so that the overtake can be completed in the available clear road space, within the posted speed limit
 - Advanced drivers do not plan to exceed the speed limit, so if the other vehicle is traveling at close to this speed, overtaking may not be legal
- **Adjust speed to safely return to the nearside of the road**
 - Adjust speed so as not to inconvenience other road users when returning to the nearside of the road

Gear

Advanced drivers must be able to:

- Select and engage the correct gear for their chosen speed and the prevailing circumstances
 - Consider which gear will be both flexible and responsive, without causing the engine to labour or over rev
 - Try to engage a gear that is suitable for the whole overtake
 - If a gear change is required plan to avoid making it whilst alongside the vehicle being overtaken

Acceleration

Advanced drivers must be able to:

- Apply the correct acceleration to complete the overtake
 - Acceleration should be smooth and progressive throughout the overtake and return to the nearside of the road
 - Advanced drivers should make a considered effort to complete the manoeuvre within the shortest possible time, but within the speed limit



Overtaking

Hints and Tips

Observer Aims

To provide the Associate with the necessary knowledge, understanding, skill and attitude to carry out an overtake safely without impacting on other road users

Objectives for the Associate

1. Discuss key safety points regarding overtaking
2. Discuss the legal restrictions on overtaking
3. Describe a three stage overtake
4. Discuss a momentum overtake

Explain

Why overtaking is hazardous

Overtaking can be considered hazardous because it may bring you into the path of other vehicles

What do we mean by an overtake?

An overtake is the process of moving past another vehicle or road user and often involves crossing the centre-line onto the other side of the road

Obeying the speed limit

You should never plan to exceed the speed limit in order to overtake

Key safety points in relation to overtaking are

- Overtake only if you can see far enough ahead to be sure it is safe
- Avoid causing any other vehicle to alter course or speed
- Be able to move back to the near-side in plenty of time
- Be ready to abandon the overtake if necessary
- Plan to avoid being the 3rd vehicle beside two others (motorways)

Discuss where your Associate could come into conflict with other road users if they were to overtake at these points

- At or near road junctions
- Where the road narrows
- Where a vehicle is indicating right
- School crossing areas
- Near-side to a tram stop
- During traffic queues

- At level crossings

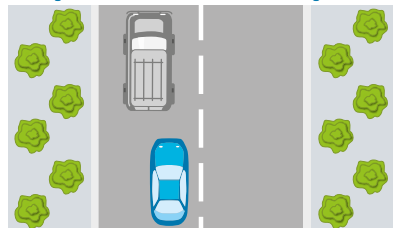
What do you need to pay attention to?

- Road markings, signs, junctions
- Driveways, bends and lateral vision
- How much of the road is clear ahead?
- The speed of the vehicle you want to overtake
- Where is your return gap after the overtake?
- What can't you see

- How fast is the vehicle you want to overtake going?

- Is the vehicle in front waiting to overtake?

- How will the driver in front feel about being overtaken?



- Is your car powerful enough to make the overtake safely?

- Are there any bends in the road - what might be around them?

Choosing when to Overtake



Never overtake unless it is safe to do so and does not adversely impact on others



Road markings, layouts and signs will help establish where to overtake



With the decision made conduct the overtake briskly within the speed limit and safely enter your return gap

Did you know?

Around 1 in 20 of all car occupants killed in a crash are killed when a vehicle is overtaking. The risk of death in a head on collision at 60 mph is 90%. Two vehicles travelling towards each other at 60 mph are closing on each other at approximately 180ft per second!

What mind set should we be in?

Look for reasons not to overtake, this way you are less likely to be affected by the things that make up our 'human factors' as drivers. Does the purpose of the journey affect your decision to overtake?

What is a momentum overtake?

This is when there are no other hazards and you are able to approach and overtake the vehicle or obstruction in one smooth manoeuvre

What is a three stage overtake?

A three stage overtake is the name used to describe the process of overtaking in situations that do not allow a momentum overtake. A situation where approaching vehicles or other hazards make it necessary to match and follow the vehicle in front while planning your overtake

Are there any additional dangers when overtaking a line of traffic?

- Overtaking a line of traffic will

present additional safety issues for the Associate, some of which are listed below:

- Longer time spent on the off-side
- Potential danger of vehicles ahead pulling out into your path
- Will your return gap be closed down by traffic
- Avoid being over ambitious and consider overtaking in bite-size pieces by looking for stop-over gaps

Overtaking near hazards or bends

As with all overtakes, this requires excellent Observation Anticipation and Planning (OAP) skills. Look for these opportunities on the exit side of roundabouts, bends, etc. Make sure the object vehicle is committed to their plan of action before you overtake

NO VISION = NO PERMISSION

Competency sheet -

Motorways and Dual Carriageways

This page gives an overview of the competency requirements for this section.

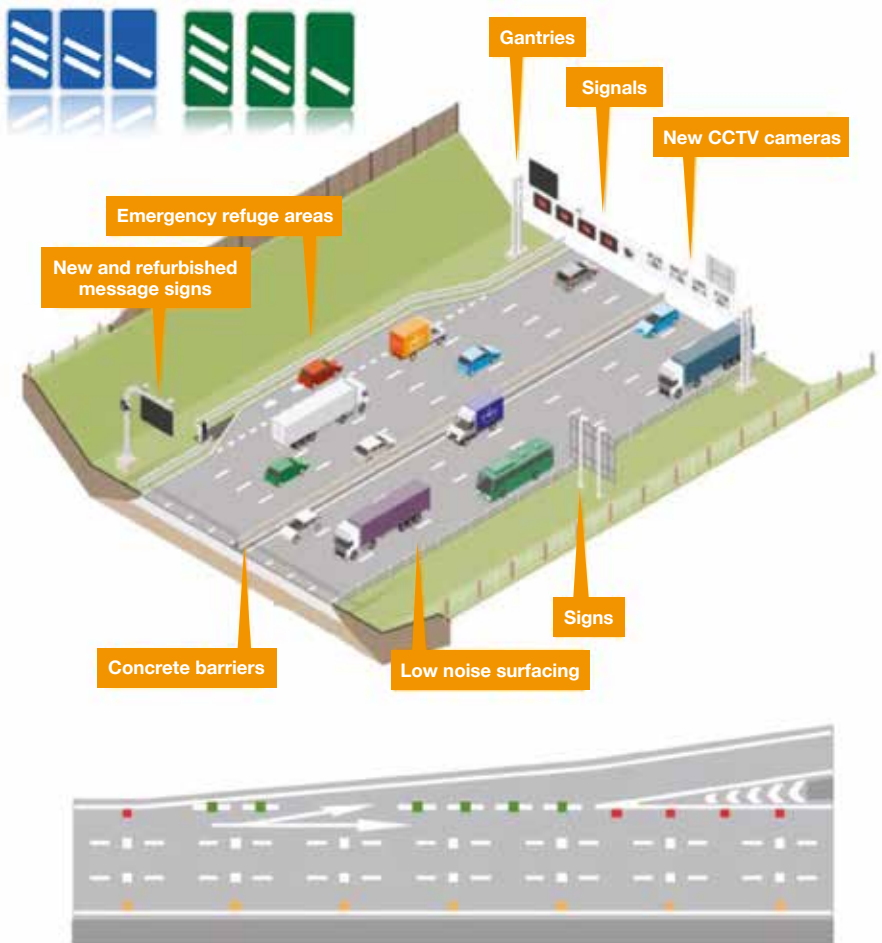
Information	Achieved
Identifies and uses signs in planning their driving	
Gathers information on traffic flow when entering a new road	
Conducts appropriate mirror and/or blind spot checks	
Communicates effectively with other road users	
Anticipates the movements of other road users	
Gathers appropriate exit information	
Position	
Adopts an appropriate entry position	
Uses the nearside lane whenever possible	
Adopts an appropriate following position	
Plans an appropriate overtaking position	
Positions to maintain a safe space and gain the best view	
Positions safely when exiting	
Exits to the appropriate lane of the slip road	
Speed	
Accurately adjusts speed to match the identified entry gap	
Balances progress with restraint	
Exits at the appropriate speed	
Stop appropriately in an emergency	
Gear	
Selects the correct gear for the chosen speed in the given circumstances	
Acceleration	
Applies appropriate acceleration	

Motorways and Dual Carriageways

Despite faster driving speeds, motorways are statistically the safest roads we travel on.

Dual Carriageways however, have the potential to be less safe, as they have the same speed limits as motorways without the same regulations. For example, cyclists, learners, pedestrians and other vulnerable road users – even horses – can all use Dual Carriageways. This, combined with less user-friendly entry and exit points, increases the potential for an accident or near miss.

It is vital for advanced drivers to recognise the differences between motorways and dual carriageways and to have a finely tuned awareness of the likely hazards – and how quickly they can develop.



Information

Advanced drivers must be able to:

- **Identify and use signs in planning their driving**

- By extending and widening their vision, advanced drivers will be able to obtain early information from signs to assist in their decision making
- They must be able to identify whether they are entering a motorway or a dual carriageway
- Motorways have blue-backed signs, they have additional regulations which prohibit a number of vulnerable road users
- Direction signs prior to a motorway also show motorway information in blue boxes
- Direction signs on motorways give additional information, e.g. an unusual feature such as a sharp bend on an exit slip road
- SMART motorways also have overhead gantries to convey information or warnings of problems ahead, e.g. lane closures or a variable speed limit
- Dual carriageways have green or white backed signs. Unless signed to the contrary, a dual carriageway can be used by all road users
- On dual carriageways, traffic has the potential to leave or join from either side at junctions

- **Gather information on traffic flow when entering a new road**

- On approach to a motorway, it is sometimes possible to see the carriageway above or below and to gather information in relation to traffic flow
- If traffic is at a standstill, advanced drivers must try to identify the problem

early enough to choose an alternative route

- While in the slip road, they should try to obtain an early view of traffic and carry out blind spot checks - especially for motorcycles which can easily be lost in a mirror

- They should also assess the speed of approaching vehicles and identify entry gap early

- **Conduct appropriate mirror and/or blind spot checks**

- Check mirrors before changing speed or position on a motorway or a dual carriageway and make appropriate checks to cover the blind spot area
- When changing lanes, good mirror use will help to accurately assess the speed of approaching traffic
- It is essential to link what is in the mirror to the hazards developing ahead in order remain safe
- Be aware that high-speed traffic approaching from the rear is relevant to decision-making - even when still a long way behind. It's important to look far enough behind in the mirror to see it

- **Communicate effectively with other road users**

- Advanced drivers should be aware that the vehicle position they adopt may begin to communicate intentions to other road users
- Well-timed signals will help to reinforce this
- They should promote safe sharing of the road space by identifying a potential problem early and actively communicating with other road users
- For example, early brake lights can alert a following driver to a problem ahead

- **Anticipate the movements of other road users**
 - Traffic joining the main carriageway from a slip road may be travelling at a slower speed, so advanced drivers should be prepared to change lanes and allow others to join
 - Whenever possible, they should avoid being immediately beside joining traffic and identify junctions early to assist in planning for this. This helps avoid the risk of being in the blind spot or being caught out by late lane changes
 - On a dual carriageway, traffic joining may be slow to accelerate
 - Traffic leaving a dual carriageway may have to slow considerably or early, causing passing traffic to displace into offside lanes. Early anticipation of where and when this is likely to happen helps to avoid heavy braking
 - Large Goods Vehicles can only travel at 56mph and coaches at 62mph. Any smaller vehicles behind them may be travelling more quickly, so advanced drivers should anticipate them pulling out into their path - and plan for this. Early anticipation of where and when this is likely to happen will avoid possible conflict
- **Gather appropriate exit information**
 - Motorways typically have a signing system giving early warning of junctions
 - Dual carriageways tend to offer more limited information.
 - If countdown markers are present, they will not necessarily be 100 yards apart but equidistant from each other
 - Exits may be very sharp or from the offside lane
 - The size and shape of a junction will influence the speed of exit
 - It may be necessary to slow and display brake lights earlier if exiting a dual

carriageway to a sharp exit

- Having an early view helps with planning a route through other traffic

Position

Advanced drivers must be able to:

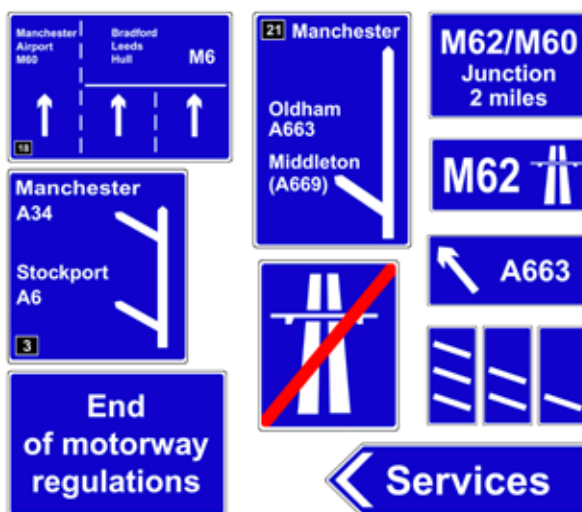
- **Adopt an appropriate entry position**
 - Make safe use of the entry slip road to build up speed and position alongside a gap
 - Avoid being alongside any vehicle when they get to the main carriageway in order to maintain their 'safety bubble'
- **Use the nearside lane whenever possible**
 - Monitor the position and speed of other road users in order to enter the nearside lane as soon as practicable
 - This is the lane all drivers should be traveling in, unless overtaking slower-moving vehicles
 - Advanced drivers should maintain their overtaking lane until a sensible gap appears and not move into the nearside lane if they would have to move straight back out again
 - Monitor mirrors to avoid holding up any emergency vehicles or fast moving traffic that may wish to pass
 - Staying out and attempting to enforce the speed limit is likely to provoke an adverse reaction from other road users
- **Adopt an appropriate following position**
 - Advanced drivers should maintain their 'safety bubble' and the safety of other road users with a following gap of at least two seconds
 - This allows time to respond to changing

information and to plan safe progress

- They should be prepared to adjust this gap to avoid being alongside other traffic for a prolonged period
 - They should be prepared to increase this gap if safety demands it
 - For example, stopping distances are longer in wet weather, and significantly longer in snow and ice
 - It may be advisable to extend the following distance in heavy traffic, to allow other vehicles to move in and out of the space in front
 - This can avoid the need for repeated braking
- **Plan an appropriate overtaking position**
 - Avoid being alongside the vehicle being overtaken for any longer than necessary
 - Move to a nearside lane as soon as it is safe and overtaking is complete
 - In general avoid being three abreast ie alongside another vehicle which is itself overtaking as any displacement may have an impact
 - For example, if a lorry is overtaking another lorry, it is wise to hold back until

a safe gap is available

- **Position to maintain a safe space and gain the best view**
 - Always position with enough space around to remain safe – and to be seen
 - For example, far enough behind an HGV to see its mirrors, or the HGV driver will not see you following
 - Adjust position to see beyond other traffic as this will help with planning
 - For example, increasing their following gap will allow an advanced driver to see beyond a group of large vehicles
 - Position safely when exiting
 - Achieve a safe exit gap in the appropriate lane in good time - to avoid affecting other road users
 - Exit to the appropriate lane of the slip road
 - Use the appropriate lane for the continuing journey
 - Ensure that any signals they give are updated as necessary



Speed

Advanced drivers must be able to:

- Accurately adjust speed to match the identified entry gap
 - This should be achieved using acceleration sense
- Balance progress with restraint
 - Advanced drivers should be aware that traffic, road-surface and speed limits will all affect ability to make progress – and be prepared to alter speed to maintain a safe following distance

- They will be able to do this by looking beyond the vehicle they are following and adjusting their speed using acceleration sense instead of braking



- They should also recognise when it is necessary to show brake lights to warn following traffic
- They must also be aware of how weather conditions can affect their own and other vehicles
- For example, wind may affect high-sided vehicles and motorcycles causing them to change lanes unexpectedly
 - Take care moving into or out of the space beside a large vehicle in high winds
- Spray, especially from large vehicles, can make it difficult to see or be seen when making an overtake
- Bright sunshine can also have a negative effect on vision, in which case it is important to slow down
- **Exit at the appropriate speed**
 - Accurately adjust speed to match the identified exit gap, ideally using acceleration sense
 - Try to avoid entering their chosen gap and braking, as this may cause following traffic to brake in response
 - An automatic vehicle may slow down less quickly when the accelerator is released. Plan for this
 - Allow time to adjust to the slower speed required at the end of the exit slip or to join any queue
 - Be aware that on a dual carriageway, it may be necessary to start slowing early to achieve the desired speed reduction and to display brake lights to warn following drivers if the exit is sharp
- **Stop appropriately in an emergency**
 - If stopping in an emergency, advanced drivers should try to enter the hard shoulder before braking, so as to slow down with less risk to themselves or following traffic
 - When re-joining the main carriageway, they should build up speed on the hard

shoulder to match the traffic in the nearside lane

- They should also be able to identify when an apparent hard shoulder is actually a live lane, e.g. on SMART motorways or in roadworks

Gear

Advanced drivers must be able to:

- **Select the correct gear for the chosen speed in the given circumstances**
 - Advanced drivers should aim to have enough flexibility to deal with the circumstances without constantly having to change gear
 - Understand that in many vehicles there may be more than one gear which is appropriate for a given situation
 - Consider higher gears for eco driving as long as they provide adequate performance

Acceleration

Advanced drivers must be able to:

- **Apply appropriate acceleration**
 - Display acceleration sense to achieve speed and lane changes wherever possible, and accelerate smoothly when circumstances allow a higher speed
 - If using cruise control be able to cancel it without affecting other road users

Motorways

Hints and Tips

Observer Aims

To provide the Associate with the necessary knowledge, understanding, skill and attitude to enter, use and exit a motorway or dual carriageway safely

Objectives for the Associate

1. Compare the differences between motorways and dual carriageways
2. Discuss positioning for safety
3. Recognising the difference on a SMART motorway
4. Demonstrate or discuss safe entry and exit of a motorway

Explain

The differences in lane descriptions

The lanes on a motorway are normally 15ft wide compared to dual carriageways which have lanes of 12 ft

What characteristics are different

Motorways are set out to improve safety and have restrictions on vehicles using them, there are no 90 degree junctions or cross flow traffic

What are the rules for using the hard shoulder in an emergency

Try to stop near an SOS call box, exit via N/S, park vehicle and move to other side of Armco

What are the main differences between a motorway and a dual carriageway?

Motorways do not have roundabouts, T-junctions or exits with short or no slip roads. There are no sharp bends. Certain vulnerable road users are prohibited

When on a motorway or dual carriageway how can you anticipate other road users' intentions?

Identify slip roads, parking and service areas. Any slow vehicles in lane 1 & 2, gradients or clusters of traffic congestion may cause displacement into your lane

Watch for the 'Non Verbal Communication' of others: monitor following distances decreasing, wheel to

white line distance altering, where the other driver is looking. These are the tell-tale signs of movement before a signal

Positioning for Safety

Position in the nearside lane (lane 1) in accordance with the Highway Code unless making an overtake

Stopping distance and thinking distance are both important factors when driving at speed on motorways and dual carriageways. Where possible apply a 3-second gap this allows other traffic to move in and out of the space in front without you having to repeatedly alter your speed, it is also less stressful than constantly fighting for space

Overtaking

Overtaking on a motorway is easier than on a single carriageway. When your Associate needs to overtake they should move across the lanes gradually as safe opportunities become available (mirror/

shoulder check before each lane change). After an overtake is completed they should move back to the nearside lane when safe

Proactive OAP will help make early decisions about lane changes

Identify Motorway or Dual-carriageway



Is your vehicle allowed in all lanes



Plan your exit early and slow down appropriately



Smart motorways follow the information gantry signs

GAP AT 70 MPH

Leaving a 2 second gap gives you a gap of 200 ft (61m)

Leaving a 3 second gap gives you a gap of 300 ft (91m)

Overall stopping distance at 70 mph is 315ft (96m)

SMART Motorways

Smart motorways now have Active Traffic Management Systems (ATMS) and/or variable speed limits. There are electronic signs on gantries above the motorway, these display the maximum speed limit allowed and what lanes can be used. In ATMS, drivers may be allowed to use the hard shoulder as a running lane – but only when the electronic signs say so

Entering a Motorway or Dual Carriageway

When entering M/W or D/C the Associate should obtain early information: 'On-slips' are often elevated. Looking to the sides during vision scans will assist with judgement and extending vision. Matching the vehicle speed to that of the vehicles on the carriageway makes for an easier transition and where gaps are limited it

allows for safer merging

Exiting a Motorway

Leaving the carriageway must be achieved without causing other road users to alter course or speed, therefore exits should be planned early and in plenty of time. Motorway exits have markers at 1 mile, this is where the Associate should be extending vision out and scanning back looking for spaces in the traffic. At the 1/2 mile marker they should be identifying and choosing a suitable gap often referred to as a 'Banker gap' (this is a space in the traffic in which they can gain access to the exit slip). In any event they should aim to be in a position to safely exit by the 300 marker. Speed should be reduced on the slip road

Competency sheet -

Manoeuvring

This page gives an overview of the competency requirements for this section.

Information	Achieved
Makes the correct decision on which manoeuvre to perform	
Makes the best use of available space	
Carries out correct observations	
Responds appropriately to changing information	
Uses available in-car technology to good effect	
Position	
Adopts the correct starting position for a manoeuvre	
Maintains a safe position during a manoeuvre	
Considers the safety of their finishing position	
Speed	
Maintains correct speed for a manoeuvre	
Gear	
Moves smoothly between forward and reverse gears	
Acceleration	
Applies correct acceleration to complete a manoeuvre	

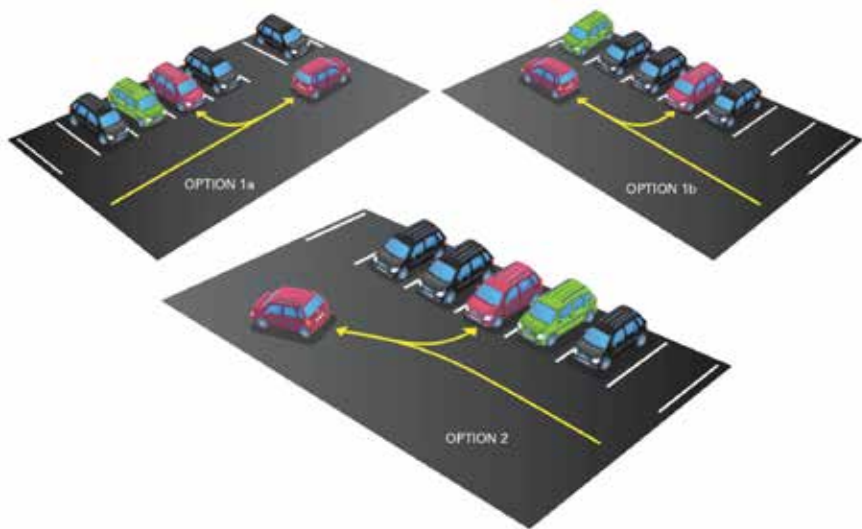


Manoeuvring

It is expected that an advanced driver will be able to control their vehicle with a degree of finesse in all circumstances.

Novice drivers are expected to be able to turn their car around safely, using forward and reverse gears and to perform parking manoeuvres to the side of the road as well as in car parks.

It therefore stands to reason that advanced drivers must be able to demonstrate their competence and proficiency in all of these areas.



If practice space is available, these manoeuvres can be set up using cones or barriers. If as is more likely, they are to be practiced in a 'live' environment, you should try to replicate real-world situations, while remaining flexible.

Information

Advanced drivers must be able to:

- **Make the correct decision on which manoeuvre to perform**
 - In real life driving situations, drivers may have a number of options available to them when deciding how to turn their vehicle around or park it safely
 - An advanced driver should choose the most appropriate option for the given circumstances
 - They must show confidence and proficiency when turning their car around and performing parking manoeuvres
- **Make the best use of available space**
 - The most suitable manoeuvre will usually be dependent on the space available, for example:
 - A junction or driveway might be utilised to perform a turn in a narrow street
 - A turn in a slightly wider road might be a U-turn
 - If access to the boot is required, reversing into a parking bay may not be appropriate
 - Ensure the gap is large enough to move into
- **Carry out correct observations**
 - An advanced driver must conduct all-round checks before carrying out a manoeuvre
 - These observations must be timely
 - They must also prioritise the area of potential danger
 - Safety is paramount when driving and effective observation is essential
- **Respond appropriately to changing information**
 - Observation is only the start of planning

- If a danger is identified, advanced drivers must ensure their response is correct and proportionate
- If there are any doubts about safety, they should usually stop
- Advanced drivers must also be aware of how others might be affected by their actions. For example, timely completion of the manoeuvre may be the safest action
- **Use available in-car technology to good effect**
 - In car technology is becoming commonplace. It is there to aid the driver and should be embraced, for example:
 - Reversing cameras and sensors – help in assessing but are not a substitute for sound observation
 - Auto park systems – help with parking but aren't always suitable; advanced drivers should be able to park both with and without them
 - If in doubt, advanced drivers should confirm information before moving

Position

Advanced drivers must be able to:

- **Adopt the correct starting position for a manoeuvre**
 - The correct starting position makes any manoeuvre easier to conduct
 - For a turn in the road, it helps to have a tight nearside position
 - For a parallel park, it helps to maintain the correct distance away from the parked vehicles



When conducting a parallel park with an Associate, start with a gap that is easily achievable and then refine it until the gap is approximately $1\frac{1}{2}$ times the length of the car. Don't try to go much smaller as in the real world, we wouldn't park in such a space. Also, while we rarely parallel-park on the offside when practising, we do park when it is the only space available. Advanced drivers should therefore show that they are able to do this

- **Maintain a safe position during a manoeuvre**
 - To ensure safety is retained while conducting the manoeuvre, advanced drivers should be mindful of their mirrors
 - For example, they should check whether other vehicles have got tow hitches or other protrusions, look for trees or lamp posts, and check the position of the kerb
- **Consider the safety of their finishing position**
 - When parking and leaving a vehicle, advanced drivers should consider whether it is likely to cause inconvenience
 - And whether it is likely to be safe from damage

Speed

Advanced drivers must be able to:

- **Maintain correct speed for a manoeuvre**
 - With safety the primary concern, manoeuvres will generally be carried out slowly
 - “As slow as possible but as quickly as necessary” is a good guide
 - Slow enough to ensure accurate information assessment quick enough to cause minimal inconvenience
 - Advanced drivers should control the speed of a manual vehicle by balancing the clutch pedal
 - Braking with your left foot in an automatic may help when conducting a manoeuvre

Gear

Advanced drivers must be able to:

- **Move smoothly between forward and reverse gears**
 - When manoeuvring, advanced drivers should stop the car before changing from forward to reverse gear or vice versa
 - They must be prepared to use the clutch to smooth out changes (it may never be fully released)



Acceleration

Advanced drivers must be able to:

- **Apply correct acceleration to complete a manoeuvre**
 - Accurate pedal balance assists in completing manoeuvres safely
 - Advanced drivers must recognise when the manoeuvre requires more power and apply the accelerator appropriately

Some additional pointers:

- When it comes to turning a vehicle around, competence in all areas is preferable to excellence in one
- When parking, Associates are not required to park their vehicles in ever-smaller gaps - or to keep their vehicle moving at all times
- Such requirements can contradict our overall aim of remaining safe and controlled at all times
- While a bay park is easy to achieve (as the size of the bay will already be set), it is worth remembering that it is more difficult to park between lines than between cars
- Stay safe, make it enjoyable and be prepared to get out of the car to make assessments. Remember, this is your opportunity to help drivers solve problems they may have carried from their novice days and that can be really rewarding

Manoeuvring

Hints and Tips

Observer Aims

To provide the Associate with the necessary knowledge, understanding, skill and attitude to manoeuvre the vehicle safely

Objectives for the Associate

1. Discuss how to choose what type of manoeuvre to make
2. Demonstrate how to carry out effective observations
3. Maintain safety during the manoeuvre
4. Where fitted make sensible use of in car technology

Explain

When a vehicle is most stable

A vehicle is most stable when travelling in a straight line on a level course and at a constant speed.

What do we need to be able to manoeuvre well

Good observation, leading to accurate information and the ability to control our vehicle at slow speed

Why should we keep manoeuvres slow

Completing manoeuvres slowly gives time to carry out good effective observations and change our plan if necessary

What type of manoeuvre is best?

The Associate needs to be able to decide which type of manoeuvre is safest to perform for their current road conditions. Available space may well dictate what manoeuvre is carried out, i.e. if turning round in a narrow street can the mouth of a junction or driveway be used to help. As an IAM RoadSmart driver the Associate needs to be competent in all manoeuvres.

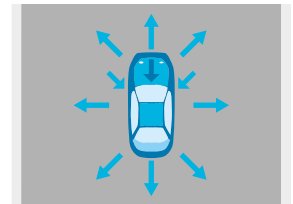
Demonstrating effective observations

The Associate needs to demonstrate their ability to carry out all round observations before and during the manoeuvre, as well as be able to show what potential danger is being prioritised.

If a danger is identified the Associate will need to demonstrate how their response

is proportionate to the danger and how they maintain safety.

Demonstrating good observations and being able to make decisions that minimise the effect on other road users may mean completing the manoeuvre is the safest option.



Being in total control



Becoming too focused on the manoeuvre will distract from safe all around observations



Try not to inconvenience others when performing the manoeuvre



Stay safe and be prepared to delay or abandon your manoeuvre for safety

Parking in a car park

Discuss the benefits of reverse parking and when this might not be the best option. Which type of parking does your Associate think they prefer?

Getting the correct starting position

Having the car in the correct starting position will make any manoeuvre easier to accomplish successfully, i.e. for a turn in the road a tight nearside position should be adopted and for a parallel park positioning the vehicle at the correct distance from other parked vehicles

Maintaining a safe position during the manoeuvre

Whilst conducting the manoeuvre, the Associate will need to be mindful of their vehicle's position as well as the location of any street furniture such as bollards and lamp posts. The Associate will also need to consider the other vehicles and any accessories such as a tow hitch or step at the back of vans etc.

Maintaining an appropriate speed for the manoeuvre

Safety is the primary concern. Most manoeuvres are conducted at as slow a speed as possible. However, as quickly as necessary is a good guide to judging the correct speed. The Associate needs to control the car slowly enough to ensure information can be gathered and assessed accurately without

inconveniencing other road users. All manoeuvring exercises are a really good way for the Associate to demonstrate the control of the clutch and accelerator in manual cars

Making a smooth transition between gear changes

Moving between forward and reverse gears needs to be conducted smoothly, the Associate needs to ensure the car is stopped before changing gear and use excellent clutch control to assist with the manoeuvre

Assuring a safe finishing position

If the Associate was leaving their car unattended, have they chosen the best place, is it likely to inconvenience any other road users and is it a safe place to leave the car, have they chosen their parking neighbours with care?

Sensible use of in-car technology

In-car technology is becoming commonplace and should be embraced but used sensibly. Reversing cameras and sensors should not be relied upon and if in doubt the Associate should be prepared to get out and check around the car

Spoken Thoughts

Spoken thoughts, the practice of describing aloud everything you see, think and do while driving, is a great way to hone advanced driving technique. It not only highlights just how many thought processes a vigilant driver goes through on a drive, but can also bring focus to specific issues

For example:

- A driver who tends to rush gear changes might include 'changing first to second, slowly and smoothly' to encourage that action
- A driver who is heavy footed when releasing the brake pedal might say 'gentle to firm brakes and then back to gentle' in an attempt to gain some third stage braking

Please note, on a busy road or in a built up area, Associates may initially find there is so much going on that they can't describe it all quickly enough and so become tongue-tied. You should therefore encourage them to practice speaking and driving when they are on their own, with no one to laugh at or criticise the jumble of words that may spill out

You should also let them know that at first, the speaking whilst driving may cause them to slow down or in extreme cases, to speed up and that they should prepare to make any necessary adjustments to maintain safety

Spoken Thoughts is a useful tool to assist in hazard prioritisation and planning assessment. If you ask the Associate to explain their thoughts in relation to approaching problems it will develop into an overview of their driving plan

Increased focus through regular practice

In all circumstances, drivers must remember that safety is their number one priority

For example:

- If they are coming out of a bend, having correctly assessed the limit point on approach to the bend, and they see a tractor emerging, it is less important to vocalise "there is a tractor moving slowly out of the farm entrance blocking my path, so rear view mirror check, then gentle to firm brakes to avoid it" than it is to actually stop

Once comfortable with speaking whilst driving, advanced drivers will find their delivery becomes more ordered. So in the same scenario, they may say 'mirror and brakes for the tractor, keeping brake lights on for the safety of following traffic'

Prioritise to stay safe in all circumstances

Dividing the speech into a small number of categories also helps to focus

- **Areas that must be included**
 - Anything likely to affect safety
 - A hazard is anything that contains an element of actual or potential danger. These should always be mentioned, so drivers can plan their response
- **Areas that should be included**
 - Road description, pedestrian activity and the like
- **Areas we would like to include**
 - Observation links such as the bins are out for the collection lorry, a church steeple indicating a possible change in speed limit and so on

Priority matters, for while it is excellent to say “entering a built-up area expecting to see an increase in vehicular and pedestrian activity; I will mention junctions and driveways should they affect my drive”, it is completely undermined if the driver fails to mention the school crossing patrol person stepping out into the road as they start their speech

Tips to improve talking whilst driving

- **Advanced drivers should:**
 - Talk back towards the car from their furthest point of vision, but remember to regularly lift their vision to continually prioritise the
 - Remember that in national speed limit areas, that while hazards are fewer, they can arise quickly, due to the speed of travel

- Be prepared to interrupt their flow and prioritise IPSGA to keep the car safe

Hallmarks of good practice

- **The driver should be informing the passenger (real or imagined) what allows them to drive this car, along this piece of road, in this position, at this speed**

Additionally, a very good driver will include information about how they are going to achieve this. And a great driver will tie all the information together and sound seamless with good intonation, reflecting the circumstances of the drive



Run Sheets framed around IPSGA

Run sheet Driver/Rider- Competencies covered

This run sheet will assist in the development of the driver/rider on the reverse side is an area to record further information.

In the run column mark			
Competence Levels: 1 = Commended 2 = Satisfactory 3 = Requires Development			
Name		Run no.	Observer comments
Preparation	Pre-Drive/Ride Checks		
	Fitness/Eyesight check		
	Cockpit Drill (car only)		
	Rolling brake test		
	Knowledge – IPSCA		
Information	Observation – scanning		
	Use of mirrors and rear observation		
	Take, Use, Give (TUG)		
	Road signs and markings		
	Anticipation		
	Hazard management		
Position	Bends		
	Junctions		
	Roundabouts		
	Overtaking		
	Hazard prioritisation		
	Vulnerable road users		
Speed	Speed limits		
	Acceleration sense		
	Limit point		
	Braking technique		
Gears	Clutch and changing gear		
	Choice of gear		
	Timing of changes		

Continued overleaf

		Run no.	Observer comments
Acceleration	Smoothness		
	Anticipation and planning		
	Hazard awareness		
	Progress and restraint		
Other skills	Steering		
	Slow manoeuvring		
	Knowledge H/code & course material		
	Courtesy to other road users		
	Vehicle/machine sympathy		
	Spoken thoughts (car only)		

Run sheet - Observer Notes

Date:		Weather conditions		Observer Name	
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Observer Comments

Development Plan

Appendix 1

Handouts

Vulnerable road users

This hand-out offers advice for sharing the road with vulnerable road users. The roads are there for everyone to use and as advanced drivers and riders we have a duty to make sure we share them safely.

A vulnerable road user is someone who has very little or no protection around them. There are many types including:

- Pedestrians
- Motorcyclists
- Horses
- Cyclists
- Mobility scooter users

Pedestrians

Pedestrians are made up of different types of people e.g. young, elderly, blind, deaf, people with limited mobility, all of whom share the road with us and do not have the protection of being in a vehicle with modern safety features. Pavements are usually the safest place for pedestrians to be, however, they need to be able to cross the road safely. Where there is no pavement for them to use they may be in the road. Not everyone on the pavement will be walking: people use roller blades, skateboards and scooters, you may need to adjust your driving to share the road safely with them.

Most of us will walk at some time; treat pedestrians the way you would want to be treated, keep them safe.

- Give them the time and space they need to use the road, especially those who have restricted mobility.

Children can be hard to see, moving quickly and doing the unexpected. Anticipate this and plan for it.

- Be patient when directed to stop by a school crossing patrol or when stopping at pedestrian crossings.

Think about where you park your vehicle.

- Is it obstructing a dropped kerb?
- Does it obscure or restrict the view of a vulnerable road user?

Never wave a pedestrian across the road, you could be inviting them into danger.

Cyclists

Cyclists share our roads and are therefore vulnerable to other traffic, especially at roundabouts and junctions. In heavy traffic cyclists may filter on either side, so you have to ensure you check your mirrors and blind spots before changing position or speed.

Cyclists may wobble because they are easily affected by side winds, which can also be generated when being overtaken. They may adjust their road positioning unexpectedly



to avoid drains and uneven road surfaces; anticipate this and prepare to adjust your driving.

You can help keep cyclists safe by:

- Allowing plenty of room when passing, be patient and plan to overtake only when it is safe to do so.
- Not following too closely as this may be intimidating.
- Respect cycle lanes and advance stop lines, give cyclists time to move off safely as they may not move away as fast as you.

Motorcyclists

There have been a number of campaigns highlighting the vulnerability of motorcyclists and yet there are still high numbers being injured every day on our roads.

Motorcyclists are:

- Harder to see, especially at junctions; they may be in a blind spot created by the 'A' pillar.
- Often travelling faster than you perceive or may be filtering either side of you.
- More affected by side winds when being overtaken or when in open areas.

Where is a motorcycle likely to be, in your mirrors or in your blind spot?

Take extra care when at junctions.

Motorcycles are harder to see as they have a different profile to a car or van. A motorcycle's headlamp may be confused with that of a car behind it, and high visibility clothing can sometimes blend into the background.

Motorcyclists may avoid riding over drain covers and paint on the road as these can cause stability problems especially in the wet.

A wet road surface may also cause them to alter their positioning on bends and roundabouts; be prepared to allow them extra space.

Mobility Scooters

Mobility scooters are becoming more prevalent. There are 2 main types:

- **Class 2** which are designed to be used on pavements and footpaths and have a top speed of 4 miles per hour.
- **Class 3** which may be used on the roads and have a top speed of 8 miles per hour.

These vehicles are electric, almost silent and therefore difficult to hear. Their slow speed means traffic may catch them up very quickly. Both types of mobility scooter's may use the road at junctions and at some roundabouts; this is where they are most vulnerable. Remember, the users of these types of transport may have restricted movement, vision or hearing. As an advanced driver/rider you need to allow these road-users plenty of space and time.

Horses

Horses are normally found being ridden in the rural areas, but may be encountered in towns. Although they prefer to ride on bridleways and other off-road places, sometimes the riders have to use the roads.

Horses can be very unpredictable and scare easily. When you see a horse and rider, slow right down, give them plenty of room, turn the radio down and keep the engine revs low, be as quiet as possible the highest useable gear will help. Only pass when you can give them plenty of space.

Sometimes you may find horses riding double file, this may be because of a young or novice rider, or a nervous horse. Give them plenty of space and be patient.

The thinking driver

The thinking driver – A pause for thought
An article by Peter Rodger.

This is about every one of us – I hope. Some thoughts to prompt your own thinking...

In recent years, at the annual IAM Groups' Conference in October there has been a session on test standards queries. These sessions have involved much discussion about specific driving or riding issues – some of them very specific indeed.

In many cases, the questions being raised seem to be seeking – as is so often the case for driving or riding related questions – a form of “rule” that can always be applied.

As examples, issues around crossing or straddling double white line systems, speeding, and being on the right hand side of the road in, or approaching, bends were in discussion.

The impression I gained was that a decision on whether it was always right, or never right, in a test scenario was what was being sought. I can understand that observers helping people prepare for the test seek some form of guidance about these things. I can understand that they want to know they are “giving the right advice” and not all giving differing messages to those preparing to take the test.

Let me work through an example to try and help understand how to deal with this in an everyday way. If you are not an observer – please read on, this is for you as well. It's actually about how we all behave on the road.

Imagine driving or riding along an unfamiliar country road towards a left hand bend,

with a high hedgerow on both sides, a comfortable road width for two lorries to pass each other.

Please picture the road as a lengthy virtually straight stretch, which allows you to travel at the national speed limit. You cannot gain any effective observation to the left, the direction the road bends, because there is a banking, topped by trees, and that thick, high hedge.

The centre line is a hazard warning line as you approach the bend, and there are oncoming vehicles restraining you from positioning near the white line, so as you approach the bend you are positioned a bit to the left of that.

It is a bright sunny, early summer – let's say early June – day, and the foliage is thick and not yet cut back from all its energetic spring growth. You lose some speed – probably down to about 40 mph – turn into the bend, and see the road straightens again with some houses on either side a hundred yards or so away.

As you straighten up, and start to accelerate back up towards the speed limit, a 30 mph speed limit sign buried in the depths of the foliage on your left becomes visible, giving you just enough space to brake to that speed, if you brake very firmly indeed (at the level of an emergency stop).

The questions are:

Do you brake very firmly and reach the speed by the time you get to the sign, or a bit less firmly and run the braking though into the 30 zone by perhaps twenty yards?

There is a decision to be made here – if you do not brake and meet the speed restriction by the time you get to it, you are breaking the speed limit – that's simple, it is a black and white law.

Now if I, as the Chief Examiner, were to give a black and white ruling about “what is allowed in the test”, the only one I could give which would satisfy the black and white constraints of the criminal law is to brake very firmly and conform with the law. The test form has a box for marking whether the drive or ride was legal or not, and doing more than 30 in the 30 zone would clearly be illegal.

But things are not really like that. Let me pick up on just one thing I did not mention in the description of the approach:

What is in your mirror/over your shoulder?
Do you have a car following you at a one car length distance, being “pushy”?
Is the mirror clear?

Let me alter things a little in a different way. Instead of being a nice sunny June day, let's make it a proper English summer's day – so pouring with rain, and with a road surface that's highly polished, and oily looking. Would that affect your decision in the real world, on an everyday journey?



I hope that thinking about these differing circumstances which arise in exactly the same place is prompting some alteration to the idea that there is an “I would always...” answer.

Where this takes us is where driving and riding become interesting – this is the bit where the person

sitting at the controls of the vehicle – be it a lorry, motorcycle, car or bus – has to look at the circumstances they are dealing with, apply some interpretation, and reach a decision.

A decision which might be different if the circumstances were different. So does a “that's simple, it's a black and white rule” statement stand up to the rigour of real life?

I don't think it does. Now I happen to hold the view that if you were prosecuted for breaking the speed limit in that first few yards, someone involved in making that happen needs to be taken to one side and be given some advice about what proper enforcement is about. However – when I am pressed for black and white rules about what is allowed in the IAM test, I find that these kind of issues are there all the time.

The advanced driving or riding test is performed in the real world among real people going about real journeys – just the same as the “L” test is. Like all those other people making their journeys, the person taking the test has to deal with real circumstances, and – whilst my example above is a deliberate construction designed to produce a theoretical dilemma – they will sometimes face real decisions, in which conforming with “Always do...” or “Never do...” produce results which are obviously not the best outcome – or may even conflict with another “always do/never do...” rule.

So the response to the question becomes “It depends...”

I get asked to define “It depends”.

Allow me to let you into the secret of that definition. After seventeen years of

dealing with life, death, injury, honesty and deviousness in operational policing of things happening on the road, twelve years of dealing with driver and rider training in the police service, conducting driving and riding tests throughout it; training and qualifying as a driving instructor, and a driving examiner; acting as a volunteer examiner for an advanced driving organisation for just under twenty years; and a further period of nearly ten years here as Chief Examiner at the IAM – I have yet to see a definition of that which is clear or concise or answers queries in a black and white way.

Therefore – advanced driving and riding is not about being black and white, and having things laid out in simple rules. It is about being mature, sensible, and applying principles to the circumstances. It is about being “the thinking driver” or “the thinking rider”. Actually, “ordinary” driving and riding are like this – let alone advanced driving and riding.



Without the flexibility to meet circumstances and deal with real life head on, safely and sensibly, advanced driving or riding would be valueless and not worthy of your time, or mine. When you first become a parent, you control the life of your newborn child. As the baby becomes a toddler, you allow it a little more freedom, but you decide when it goes to bed, and you put it there.

Then as the child grows, that bedtime tends to become a bit later... and later... and later, as the years go by. When your child has grown up and left school and is at work or college, you no longer tell it what time to go to bed – but you might remind him or her “Don’t forget you have to go to work in the morning”.

Driving is similar – as we first start our instructor needs to give us close attention and help, with easy to understand ideas and “rules”. But as we mature, we need to be allowed more room to think and make decisions... to use our experience and understanding.



Of course, there are principles we should abide by – be safe, be systematic, be legal and be smooth. There are others, but let’s hold it there, as those are enough for now. Sometimes they can conflict with one another, and the one that must always come out on top is safety.

I was intrigued by an enquiry I received in the office recently from a driver who was having a problem at a roundabout. He explained it all, and when I read it the position was clear – he said that he did not want to “do what is wrong” according to how he read the Highway Code, but this meant he was in conflict with other traffic, with potential danger arising.

Ignoring the complexities of roundabouts, the principle is clear – it is better to be wrong but safe, rather than right but dangerous. (Please don’t write in about dangerous driving always being wrong – I’m trying to make a point here about prioritising).

So – be a “thinking driver” or a “thinking rider”. If you are an observer, doing that

brilliant thing that so many of you do so inspirationally well around the UK of helping people develop – help them become “thinking”.

If you are an examiner doing that thing you do so well – look for the “thinking” solution. We all need to give each other enough space to allow for the thinking to happen, allowing people to grow and develop, and to value the maturity and flexibility that brings.

Examiners need to give candidates room to adopt the “thinking” solution, observers need to help the thinking to develop, and we all need to think when we drive and ride.

The advanced test should really just be a drive or a ride like any other – safe, systematic, smooth, legal, and thought through. A demonstration of the thinking driver or rider making a journey and doing it well.

I cannot advise you to break speed limits, or enter bus lanes and cycle lanes you shouldn't be in, or lots of other things. However I can advise you to think as you drive or ride. Be a thinking driver or rider, (and decide your own bedtime as well!)

This article was written by Peter Rodger and appeared in the Advanced Driving (Summer 2014) magazine.

The test – what to expect

The test is the culmination of your training, it is your opportunity to show how good you are and justify your observer's faith in you. A little bit of nerves can be a good thing. Stay focused and try to enjoy it. The perfect driver has not yet been discovered but how close are you?

What to expect during the test

- The administration process
- The test
- You
- At the conclusion of the test

The administration process

Having applied for your test you will be contacted by your examiner either by telephone or email. This is to arrange a mutually convenient date, time and location for the test to take place. The location should be safe, easy to find, of no cost to either of you with facilities and easy access to a variety of roads. Supermarket car parks and fast food restaurants are often chosen. (Beware of time limited parking)

The test

This should be about 75 minutes from start to finish with no more than 60 minutes riding or driving.

What will be tested?

After the document disclaimer is dealt with the examiner will conduct an eyesight check. This is the same as the DVSA test or a police roadside check. You must be able to read a standard number plate at a distance of 20.5 metres.

During the drive you can be tested on anything from the course material. It may not be possible to assess some areas practically so the examiner may ask questions.

You will be asked to conduct a practical real life manoeuvre or demonstrate competency in course of test and your decision making process is part of the assessment. On a motorcycle you may be asked to perform a slow riding manoeuvre if this has not been displayed during the test.

Your drive must be safe and legal. Use your speedometer to keep to the speed limits which must be adhered to at all times, there are no exemptions when making an overtake so do not plan to exceed the speed limit when deliberating.

Your Examiner

All of the IAM examiners are advanced police drivers and have experience in dealing with road safety matters. They will:

- Put you at ease.
- Set the scene for you and explain what they are looking for.
- Explain clearly the route directions and how they will communicate them.
- Explain test protocols such as safety and commentary.
- Explain that any road traffic offence is likely to lead to a fail.

- Explain about their note taking (they write positive points as well as areas for development)
- Give advice on how mistakes will be dealt with (you will not necessarily fail for a minor mistake)
- Answer any questions you may have

You

We know that you will be nervous, we all were in the same circumstances. Your examiner will have been through the assessment process a number of times from both seats.

If you have any concerns or are unsure of anything don't be shy, ask the question, there is no such thing as a stupid question and you will get an answer to help put you at ease.

If you are suffering from any disability or mobility issues let the examiner know.

If you are dyslexic or hard of hearing let the examiner know.

All reasonable adjustments will be made to the test to make it all-inclusive. It must however be assessing a standard that is perceivably higher than the DVSA test.

You will be asked to attempt a commentary. To achieve a FIRST you must have tried (unless medical reasons apply) give it a try it can help you to focus.

During the test if you don't hear or think you may have misunderstood an instruction ask. We are all human.

At the conclusion of the test

You will be told your result straight away Pass or Fail

You will be given verbal feedback followed by a written report containing the detail of your drive or ride.

If you are successful you will be given an interim pass certificate. You will also be given advice on other options within the IAM

that you may choose to further develop your skills such as Local or National observer, the FIRST register, the Master's program, or regionally run skills days.

If you are unsuccessful your areas to develop will be highlighted and this reinforced by the written report. If you don't understand what is being said ask, the examiner wants you to develop and be successful.

Advanced Driver/Rider test report

Candidate Information

Surname: _____ First Name: _____
 Date: _____ Time: _____
 Advanced test: ☐ Intended for: ☐ Declaration: ☐ Associate test: ☐

Vehicle information (tick and delete as required)

Car: ☐ Motorcycle: ☐ Commercial (Heavy/Medium/Light): ☐ Bus/Coach/Minibus (with/trailer): ☐
 Bikes: ☐ Make: _____ Model: _____ Automatic: ☐

Competence Levels: 1 = Commended 2 = Satisfactory 3 = Requires Development

Safety and legality	Gear changing	3 = Requires Development
System	Use of gearbox	Clutching
Observation	Acceleration/harsh	Braking/engages
Planning & hazard management	Manoeuvre observation	Reverse factors & concentration
Anticipation	Shifting	Control
Vehicle sympathy & eco driving	Braking	Slow manoeuvring
Positioning	Signals	Smoothness
Steady thought	Knowledge	OVERALL RESULT

Comments

Examiner's name: _____ Signature: _____ Number: _____

Pre-drive checks

This handout describes how to conduct a pre-drive check, how to go through a systematic cockpit drill and then the start up procedure to be used prior to driving off.

Pre-Drive Checks

Visual examination of the exterior of the vehicle for:

1. Damage (Dents and scratches, wheel rims etc) Where did it happen?
2. Defects (wires hanging down, exhaust loose, plastic under trays not secure)
3. Leaks (fluids under the vehicle, what are they, you may not want to touch them. If the vehicle has been started be aware the air conditioning unit will release water. Can you see the brake calipers is there fluid on them)
4. Brake fluid (a physical check of the reservoir will show the level) If the level is low why? Could it be the brake pads are close to the wear limit, or do you have a leak?
5. Clutch fluid (As above)
6. Screen wash (Keep level topped up with suitable mix to prevent freezing and assist in cleaning)

Tyres

1. Condition (no cuts or bulges)
2. Tread (1.6 mm across the central $\frac{3}{4}$ around the whole circumference is legal. More tread is safer)
3. Pressure (check cold if possible with an accurate gauge, the recommended pressure will be found in the handbook and also on the bodywork somewhere. Fuel filler flaps or inside driver or passenger doors are favourites. Where is it on this car?)

Under bonnet checks

1. How does the bonnet open (Key, one pull latch, two pull latch where is the secondary release).
2. Oil (does the oil require a physical check using the dipstick or is it checked via a computer)
3. Engine coolant (visual inspection of the header tank, if it is below the level

required add the correct mixed coolant.

Modern cooling systems contain a chemical mix which is more efficient than water alone and has corrosion inhibiting properties.) If it has lost fluid why, this may be a problem.

7. Is everything as you expect it to be, no loose items or leaks visible.

Lights/Electrics

1. Check operation of all lights, remember that some lights will require the ignition to be active. If possible get help to operate or check the lights, if this is not possible you may be able to see reflections in windows or may have to walk around. Don't forget the reversing lamps and fog lights. (Most modern cars will check bulbs when the ignition is activated and display a warning if a defect is found)
2. Check horn (be aware of not sounding it between 11.30pm and 7am)
3. Wipers/washers (do not operate on a dry screen as you may damage wiper blades)

How to conduct a Cockpit Drill

A good cockpit drill needs to include:

A static brake test (Firm pressure on the foot brake, release the parking brake, is the pressure maintained and is there space for travel below the pedal)

Seat and mirror adjustment (for control, comfort and vision)

A description of vehicle, transmission and how to select reverse. (I am driving a Volvo V40 which has a six speed gearbox driving the front wheels, reverse is “push down away and forward”)

Controls of vehicle

Be logical and ordered but understand what you are trying to achieve, can we demist the car, can we find the hazard warning lights without taking our eyes off the road. How do we operate the fog lights, if we stop to let a passenger in where is the door lock.

Start in the centre console, particularly heating and ventilation controls, take time to understand them and how to direct the air or control the temperature. Where are the vents aiming? Minor controls (often fog lights will be controlled from here) and some window switches. Often a central locking button.

Move across to steering column stems, these will control indicators and windscreen wipers and often headlights and rear wash wipe systems.

Again take time to understand the functions and where the manual and auto settings are and which settings are appropriate for your journey. Is the horn here?

Some operating systems for cruise control or speed limiters may be on a secondary stem.

Move to the driver's door, mirror adjustment is normally found here, understand how it works.

Window switches if not already located and possibly the central locking button. If you still haven't found window switches you may have stepped back in time and have to wind the window (or really far back in time and have to slide it)

Onto the steering wheel you may have a number of functions or nothing. You can often control radios, mobile phones and navigation systems from the steering wheel, each system is different, know how yours works.



Startup Procedure

Check vehicle is in neutral or park

- Make ignition live
- Check warning lamps:
- What is on?
- What should be on?
- What goes out?
- What doesn't?
- Is everything as it should be?
- Are you left with the lights that should be illuminated?

Vehicle is in neutral (manual), or park (auto)
Depress clutch pedal (manual) as this guards against false neutral and reduces strain on the starter motor. Most modern cars won't start without the clutch being depressed.

Firm pressure on the foot brake. When the engine starts the brake servo becoming active will be felt through the brake pedal.

Most autos won't start without the brake pedal being depressed.

Pull down on the steering wheel with the hand not turning the key or pressing the starter button. When the engine starts, the power steering becoming active will be felt through the steering wheel.

Press start or turn key to second stage and start engine.

All warning lights should now extinguish except for the parking brake warning light.

This is actually the brake failure warning light that is checked every time you apply the parking brake (if this illuminates whilst driving, stop and have the vehicle checked).

The steering should have become light (if power steering fitted). The brake servo should have become active (if fitted)

Gauges should read as you expect.

The rev counter (if fitted) should respond to the accelerator.

The fuel gauge should show sufficient fuel for your immediate journey.

Moving Brake Check

Check your brakes in a safe environment before getting into a situation where you may need them. Ideally achieve 30mph in a non-retarding gear and apply the brakes in a progressive manner. The vehicle should pull up evenly and as expected, you should now know the required pressure to slow and stop your car. If it is not possible to conduct this check due to traffic conditions or other factors, you must ensure you introduce the brakes early for a hazard until you are satisfied with their performance.



Learning Styles

Visual Modality - A Visual Learner

- Learns by seeing and by watching demonstrations
- Likes visual stimuli such as pictures, slides, graphs, demonstrations, etc.
- Conjures up the image of a form by seeing it in the “mind’s eye”
- Often has a vivid imagination
- Often stares
- Needs something to watch
- Is often quiet and does not talk at length
- Becomes impatient or drifts away when extensive listening is required
- Prefers the visual arts and media

Haptic Modality - The Haptic Learner

- Likes a “hands-on” approach to learning
- Involves the sense of touch in learning
- Likes to do artwork
- Likes to piece things together
- May be fond of doodling
- Likes to trace words and pictures
- Is often seen “fiddling” with something
- Is successful with tasks requiring manipulation



KINAESTHETIC Modality - The KINAESTHETIC Learner

- Learns by doing, direct involvement
- Often fidgets or finds reasons to move
- Is not very attentive to visual or auditory presentations
- Wants to be “doing” something
- Tries things out and likes to manipulate objects
- Gestures when speaking
- Is often a poor listener
- Responds to music by physical movement
- Often finds success in physical response activities
- Learns better when able to move during learning
- Likes to move hands (doodling, tapping,) while learning
- Uses movement to help concentrate

• Olfactory Modality - The Olfactory Learner

- Learns best through the sense of smell and taste
- Smells have a special significance
- Associates a particular smell with specific past memories
- Is frequently able to identify smells
- Finds that smells add to learning

Print Modality - A Print Oriented Learner

- Often takes notes
- May like to write on the blackboard
- Remembers quickly and easily what is read
- Learns better after seeing or writing something
- Is often perceived as a “bookworm”
- Grasps important concepts on first reading of material
- Loves to read books, journals, magazines

Interactive Modality - The Interactive Learner

- Learns best through verbalization
- Often hums or talks to self or others
- Usually is not quiet for great lengths of time
- Often talks at length...just to hear him/herself talk!
- Likes to use other people as a sounding board
- Enjoys question/answer sessions
- Finds small group discussions stimulating and informative
- Prefers to discuss things with others



Aural Modality - An Aural Learner

- Tends to remember and repeat ideas that are verbally presented
- Learns well through lectures
- Is an excellent listener
- Can reproduce letters or words by hearing them
- Likes to talk
- Enjoys plays dialogues, dramas
- Can learn concepts by listening to tapes
- Enjoys music
- Can repeat or fulfil verbal instructions

Inclement Weather

This hand-out offers advice for driving during inclement weather. With each season comes a range of conditions all of which need to be managed safely.

The weather conditions discussed in this hand-out are:

- Rain
- Snow and Ice
- Bright Sunlight
- High Winds
- Fog

Rain

The Highway Code gives advice in relation to doubling potential stopping distances when driving on a wet road, but there is so much more to consider when driving in wet conditions.

Ensure your windscreen and wipers are in good condition and the washer system works correctly. Know how to operate them. Be able to set the ventilation system to demist, as the rain is likely to cause misting on the inside of the windows.

Consider if you are struggling to see other drivers that they may struggle to see you. Consider dipped headlamps (not fog lamps as they dazzle).

Standing water may affect steering, a puddle may pull the wheel towards the verge or centre of the road. Apply a firm grip to prevent unwanted steering.

Deep water may cause “aquaplaning” this is where the tyre treads are unable to clear sufficient water and a wedge of water forms and preventing the tyre from gripping the road it feels like driving on ice and steering and braking capabilities are lost.

Take your foot off the accelerator and retain a light grip on the steering wheel, do not brake or attempt to steer as any input is likely to be excessive when the grip returns. The grip will

return within a short time do not overreact.

If possible avoid standing water,

Consider

What is in it?

Does it have potentially damaging pot holes that are now concealed?

How deep is it?

Will it flood the air intake of the vehicle?
If so don't drive into it as the engine may “hydro-lock” causing major damage.

If you must go through it and it is not too deep keep engine revs high but speed slow.

When you reach the other side dry the brakes by applying them in a safe area.



Snow & Ice

Highway code advice for stopping distances in the snow and ice is they need to be increased by up to 10 times.

On packed snow and ice the tyres have virtually no grip available, which has a serious

effect on vehicle stability programmes almost negating them. Whilst it is possible to get a vehicle moving reasonably effectively, stopping it or changing direction can be much more difficult.

Gentle acceleration in the highest possible gear will assist in moving away. Slowing down is best achieved using the gears. A common problem in snow and ice is driving at a generic speed which is perceived to be “safe”. At times it may be that 40mph is acceptable but at other times 15mph may be far too fast.

Where you need to be able to change direction or perhaps to stop, reduce speed gradually. Be aware that the car may skid. ABS systems are designed to allow the wheel to lock at very low speeds (otherwise they would never stop) severely reduced grip may mean the vehicle slides forward at a slow speed.

Coarse steering may induce a skid. Be smooth and progressive with steering in order not to break grip. If you steer do it gently until you are back to the course you wish the car to follow.

Understand that packed snow may adhere to the wheel arches and affect steering.

Make sure you carry extra clothing/blankets in the vehicle to stay warm in the event of being stranded.

Be aware some small roads are not always treated for ice, if there is evidence of road salt on major routes, or the temperature is low, take extra care. In extreme conditions stay on the major routes if possible.

Understand where a micro climate is likely to occur, ice may form in isolation in low lying areas under trees or on bridges and will remain for longer in shaded areas.



Bright Sunlight

Bright sunlight may affect your vision. If it does you must slow down. In winter the sun is lower and may affect you even more.

If you decide to wear sun glasses be aware they will reduce your vision out of tinted windows. Take extra care when emerging from junctions and if in any doubt don't move. Be ready to remove the glasses if you drive into a tunnel or shaded area.

Know how to use the sun visor to best effect.

High Winds

Be aware that wind will affect vehicles in different ways. High sided vehicles will be more susceptible to wind and speeds must be reduced.

When passing a high sided vehicle be aware the wind affecting you will change, and give them as much space as possible. If you see them being affected don't pass.

Be especially careful if crossing exposed bridges.

Fog

Fog and mist cause some of the most dangerous and difficult driving conditions.

Use dipped beam, many modern car instrument panels light up even when the headlights are turned off so check the control to be sure. Use your fog lights when the visibility drops below 100m. Don't forget that when the fog clears, you will need to turn the fog lights off again as soon as possible, otherwise you may dazzle other road users. Remember in patchy fog, you may need to turn your fog lights off in the clearer patches, and on again when the fog gets thicker.

Avoid using full beam, even when there's nobody else around, because the fog will reflect the light back at you, and that has the effect of reducing, rather than improving, your vision.

A sensible technique when it's foggy is to turn the radio off and open your windows at junctions – that way, you can listen for oncoming cars when you can't see them.

Emergency vehicles

Emergency vehicle responding to calls and using warning equipment would like to pass you but will not expect you to put yourself or others in danger to facilitate this. This handout applies a common-sense approach to assisting where possible.

Highway Code References.

The Highway Code makes reference to emergency vehicle in three areas. In each instance a sensible planned response will assist.

Highway Code Rule 31

Emergency vehicles.

If an ambulance, fire engine, police or other emergency vehicle approaches using flashing blue lights, headlights and/or sirens, keep off the road.

This rule applies to pedestrians but is also apt for drivers if you have not yet joined the main road. If you can safely stay out of the way let them pass. It may be that this information about an incident along a particular route will affect your choice of route.

Ambulances are easy to spot. Fire engines even easier. Both are likely to mean a possible delay on your route.

Highway Code Rule 219

Emergency and Incident Support vehicles.

You should look and listen for ambulances, fire engines, police, doctors or other emergency vehicles. They may be using flashing blue, red or green lights and sounding sirens. When one approaches do not panic. Consider the route of such a vehicle and take appropriate action to let it pass, while complying with all traffic signs. If necessary, pull to the side of the road and stop, but try to avoid stopping before the brow of a hill, a bend or narrow section of road. Do not endanger yourself, other road users or pedestrians and avoid mounting the kerb. Do not brake harshly on approach to a junction or roundabout, as a following vehicle may not have the same view as you. Flashing amber beacons are normally 'Highways Agency Traffic Officers' or incident support vehicles they will generally operate slow time but be aware of their needs.

When you hear a siren the natural reaction is to look for a marked police car, a fire engine or an ambulance.

Or even this

Try to be open to the possibility the vehicle trying to pass may be a plain looking car, with emergency warning equipment fitted. The lights are not always easily visible and the sirens can appear to come from a different direction. Motorcycles are now used by all emergency services and they may be hard to see, although they will make a lot



of noise. Be sensible in your response and plan as an advanced driver. Stopping may be inappropriate and slowing down may cause delay. Each situation will require its own response. The drivers of the emergency vehicles are trained to help you and should appreciate your efforts. Look for some indication of what they would like you to do, the position of the vehicle or a signal from the driver may help. If you can't help immediately, continue at a sensible speed until you can. Exceeding the speed limit is not expected of you and a camera will have no discretion if you get flashed.

Likewise with bus lane cameras you may find it difficult to prove why you went into the bus lane. (It is likely that the emergency vehicle will be using an empty bus lane in any case) As a general rule if the road is wide enough for them to pass pull over to the left and stop, if it is not wide enough keep moving until it is or you can pull into the mouth of a junction or utilise a dropped kerb (they will not expect you to drive up a kerb to allow them to pass).

At traffic light junctions or give way lines be aware that you have no exemption to ignore them. However well- intentioned your actions may be any collision or incident will be your responsibility. The presence of the emergency vehicle would merely be regarded as mitigating circumstances.

Do not place yourself or others in danger by proceeding through a red traffic light, safety is the number one consideration. Be aware a camera at the location may record you jumping the light but may not accurately capture the circumstances in which you did it. The emergency services driver is trained to make "safe" progress and will be aware that you may not be able to assist. (In these circumstances their training would suggest switching off the warning equipment to "relieve the pressure")

A good plan of what to do will assist you in making positive decisions. On a wide road simply showing a left signal moving left and



slowing may suffice, if they don't come past stop. It may be they wish to speak to you. On a narrower road it will help to be mindful of traffic bollards, parked vehicles and other hazards when choosing where to stop.

If you are not able to assist then proceeding safely at the speed limit allows them to get to their intended location (unless they indicate otherwise see above). Be positive and do not panic. If they ask you to move somewhere specifically and it is safe, follow the instruction.

Be aware that a collision involving you will likely result in the emergency vehicle not arriving at their intended incident as they will be required to stop and deal as a "vicinity only" incident so they definitely do not want you "crashing" in an attempt to help.

Whilst the emergency services are in certain circumstances exempt from some road traffic legislation they have to comply with a large proportion of it specifically in relation to the standard expected of a

careful and competent driver.

Other examples of covert vehicles fitted with emergency warning equipment are likely to be used by fire officers who may have this fitted to their own vehicles.

All of the emergency responders work to the rule

“No call is so urgent as to justify an accident which will in itself always cause delay”

They should be courteous and grateful for your efforts.

Highway Code Rule 281

Warning signs or flashing lights.

If you see or hear emergency or incident support vehicles in the distance, be aware there may be an incident ahead (see Rule 219). Police officers and traffic officers may be required to work in the carriageway, for example dealing with debris, collisions or conducting rolling road blocks. Police officers will use rear-facing flashing red and blue lights and traffic officers will use rear-facing flashing red and amber lights in these situations. Watch out for such signals, slow down and be prepared to stop. You **MUST** follow any directions given by police officers or traffic officers as to whether you can safely pass the incident or blockage.

Try to be patient - if the road is closed, it is done for safety or to gather evidence. It may seem that not much is happening, but they want the road opened and moving as much as you do.

They do have better things to do! But none as important as the incident they are dealing with at the moment.

We haven't yet mentioned Doctors or some of the volunteer ambulance services, they may have vehicles fitted with warning equipment but not have any exemption from road traffic legislation, be sensible if you see them trying to get somewhere quickly help if you are able



The Legal Bit.

The Road Traffic Regulation Act 1984 and The Traffic Signs Regulations and General Directions 2002 exempt emergency vehicles from:

- 1) observing speed limits
- 2) observing keep left/right signs
- 3) complying with traffic lights (including pedestrian controlled crossings).

These exemptions are subject to further guidelines during the emergency response drivers training

Driving at night

Night driving presents unique challenges drivers, the limit of vision is dictated by the performance of your headlamps, your windscreen and your eyesight. This handout covers legislation and some practicalities regarding driving at night.

This handout touches on:

- Legislation
- Practicalities of lighting
- Practicalities of driving at night
- Limit point analysis

Legislation

The Road Traffic Act 1988 and the Road Vehicle Lighting Regulations 1989 confer on vehicle users certain responsibilities when driving at night.

Obligatory lights must be displayed during the hours of darkness on all mechanically propelled vehicles. In areas with a speed limit above 30mph dipped headlamps must be used.

Practicalities of lighting

It must be remembered that vehicle lighting is designed to ensure the vehicle is seen as well as to ensure the driver can see. With this in mind, care should be taken when parking at night with lights switched on, to ensure road users are not left confused as to whether the vehicle

is actually parked, or appears to be in the opposite carriageway.

Ensure all lights are kept clean and visible. In certain weather or driving conditions, they may require regular cleaning to ensure they remain efficient.

Automatic light functions on modern vehicles will respond to darkness, but may not operate in wet weather or other situations where visibility is severely reduced. Be prepared to switch on the headlamps manually if circumstances dictate.

Whilst it is dark and raining, visibility will be further affected by dazzle from on-coming vehicles, in these circumstances it is important to keep all windows and exterior mirrors as clean as possible. Include spectacles in this if worn.



When dazzled by headlamps from the rear of your vehicle it is important to know how the rear view mirror dips.

Practicalities of driving at night

The overriding principle of safe driving is that you must be able to stop in the distance you can see to be clear on your own side of the road. In areas of extreme darkness the limit of your vision is restricted to the limit of your headlamp beam.

In these circumstances your speed must be adjusted accordingly. It may be that your vision is extended by use of the headlamps on the vehicle in front. Use the information beyond them to good effect, but do not rely on them as a guide to a safe speed.

Limit point analysis

Negotiating bends using the limit point requires adjustment when driving in the dark. Some lateral information that may have been available during the day, will not be visible at night.

The photo opposite shows a typical bend viewed in ideal daylight conditions.

Now study the same view taken at night and see how much detail is lost: depth of vision, colour and distance are all more difficult for the human eye to register in the dark.

Dipped headlamps rather than main beam may assist in locating the nearside of the road in a bend.

If you become dazzled by on coming traffic, look down and to the left to try to locate the edge of the road and slow down until you can see again.

The way the human eyes work means that in very dimly lit conditions, the peripheral vision is more sensitive to light than the central portion of your vision.



Bear this in mind on unlit rural roads.

You can aid your night vision by keeping interior and ambient lighting to an absolute minimum.

For information, the human eye takes around twenty minutes to become fully adapted to darkness. Any bright lighting, including mobile phone screen, dashboard lights or sat nav will diminish your night vision.

Make full use of the dimmer control on instrument panel lighting and be prepared to change your satellite navigation system to night mode if this is not an automatic function.

Communication

Mobile communication and GPS is becoming more commonplace in cars, this hand-out offers advice for using this technology to complement your driving. It is not exhaustive but touches on the following areas.

The technology discussed in this hand-out is:

- Satellite Navigation
- Mobile telephones
- Internet

Satellite Navigation

Many drivers now have access to satellite navigation systems which are either fitted into their vehicle, after market attachments or combined with a smart phone. When used correctly they will complement driving and can relieve the stress of route planning.

They can however be a distraction and may lead to sudden changes of direction if not used correctly. If you are using the system for directions, set the volume to a level that you can hear easily. The screens can be small and may distract concentration from other driving decisions.

In car systems will usually display a warning screen which must be accepted before use is allowed, they generally play through the cars audio system and will interrupt any other audio source. They may have voice activation and the ability to enter data via speech.

Be aware that if you are doing this whilst moving you are likely to be distracted from driving.

After market systems will need to be safely secured in the vehicle, they should not obscure the drivers view but need to be visible without substantial head movement.

Care should also be taken when routing cables to ensure they do not interfere with steering or other controls. When you remove the mount, bear in mind the tell-tale ring left may be an indication to thieves that the system is in the car.

If combined with a smart phone ideally the phone should be secured in the car. All programming should be done before moving off, as using the phone whilst driving is subject to prohibitive legislation. We do not want to be the test case, in a court of law for using its navigation function.



Mobile Phones

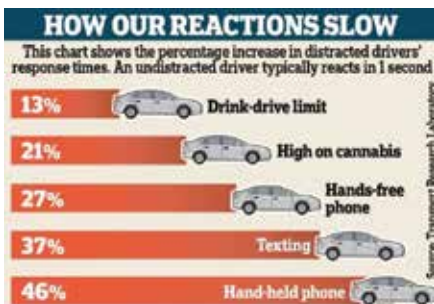
Mobile telephones have become an integral part of everyday life, often to the exclusion of sensible values. Legislation prevents the use of a hand held mobile device whilst driving unless making a call to the emergency services and it is unsafe to stop.

You are legally permitted to use hands free devices fitted to the vehicle to make and receive any calls.

It has been shown by extensive research that making calls - even hands free - substantially affects concentration and slows reactions when driving. This is a major safety concern.

The policy adopted by the IAM is to pull over safely before making or taking a call and it is suggested the driver confirms this to the caller. Emergency calls as above are excluded from the policy if it is not safe or practicable to pull over.

Good practice is to keep the phone powered up (they take a long time to restart and may be required in an emergency and other functions such as GPS tracking may be useful) but secured away from the driver. If you are utilising navigation on the phone secure it in view.



Internet

Some vehicles now have the facility to create a wi-fi zone within the vehicle to allow internet access for computers and tablets.

This is intended for use whilst parked or for the use of passengers. It is good practice, even if the passenger is going to use this, for it to be done in the rear seat. The screen can be a distraction for the driver, especially at night.

- Legislation prohibiting a TV screen from being visible to the driver specifically mentions a “cathode ray tube”, but also other “cinematographic equipment”. It is this second area that is likely to fit the computer screen. It is common sense not to use this whilst driving.

Ensure that any passengers using phones, computers or other electronic equipment do not distract you from your primary task of driving safely.

In Car Technology for Communication

As human beings we are not very good at multi tasking, something has to give when we try to concentrate on two things at once.

Communication devices no matter how we use them, distract us from driving.

Car Technology

In-car technology which was once only fitted to luxury or high-end vehicles is now becoming more commonplace. This hand-out offers advice for using this technology to complement your driving. It is not exhaustive but touches on the following areas.

The technology discussed in this hand-out is:

- Auto Gearboxes
- Anti Lock Brakes (ABS)
- Auto Headlamps/ Wipers
- Cruise Control/ Speed limiter
- Electronic Stability Programme (ESP)

Auto Gearboxes

The range of functions available on automatic gearboxes is changing at an incredible speed.

You need to have at least a basic understanding of the system fitted to your vehicle and how to use the it.

It is important that an advanced driver can at least select a gear hold where fitted and appropriate (some hybrid or electric vehicles may not have this function) and operate the gear selector efficiently.

If you have further interest in the functions, consult the manufacturer's guide.

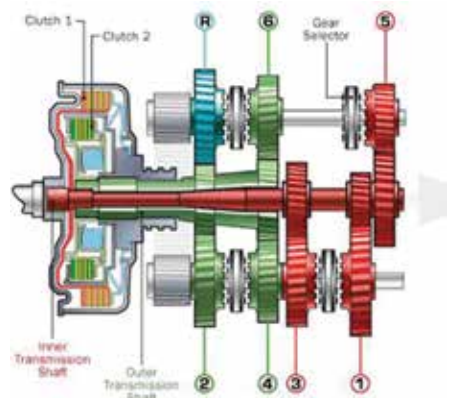
Try to explain the functions in layman's terms to your observer.

As firm acceleration will likely operate the kick down function you need to understand what is happening in the simplest form (the car has selected a lower gear for acceleration) and how to avoid unintended use.

ABS

Aside from limited production exemptions, new cars supplied in the UK since July 2004 must be fitted with ABS.

The important message is it does not



improve braking efficiency, it allows you to retain steering at the point of maximum braking and may allow you to steer out of a situation whilst still slowing.

It is also important to remember, although steering is retained, a skid may still be induced if tyre grip is not sufficient at the speed of travel (Tyre grip is shared between steering and braking).

ABS is a safety aid which may help in emergency situations. It should not be operated as a matter of course and planned progressive braking will help avoid activation.

Auto Headlamps/Wipers

Many of modern vehicles now have the option of setting windscreen wipers and or lights to an automatic setting.

The headlamps will illuminate if a sensor fitted to the vehicle detects a reduction in the available light. Similarly the wipers will start in response to moisture on the screen. Both systems can be a useful aid but neither is foolproof.

The associate needs to know how to operate each in its manual form. In certain reduced visibility conditions an advanced driver may display lights when the automatic system has decided not to. Likewise an advanced driver may decide a certain speed of wipers is preferable to the one chosen by the auto setting.

Electronic Stability Programme (ESP)

From November 2014 all new vehicles registered in the EU are required to have ESP. ESP is a safety aid which in an emergency situation helps drivers maintain control by monitoring steering inputs and



vehicle direction. The system detects when a vehicle is departing from its intended path and automatically applies brakes to the appropriate wheel, endeavouring to point the vehicle in the direction being requested by the steering wheel. Engine power may also be reduced in some systems.

It is a massive step in road safety, but as with all safety aids cannot operate outside the laws of physics.

If a vehicle is being driven in a sensible, planned, advanced manner the system will not be called upon.

The diagram shows how ESP works however Various film clips are available showing ESP in action.

Cruise Control/Speed limiters



These devices will either allow the vehicle to maintain a constant speed or prevent it from exceeding a set limit. With either function it is important to know how to operate and override the system safely.

In most cases the cruise control will have an on and off switch, functions to set, increase and decrease speed also a method of pausing the system and then resuming to the set speed. Operation of the brake pedal will cancel the system and in a manual car operating the clutch pedal will also cancel it.

You should avoid cancelling with brake application unless the information conveyed by the brake lights will be required. Inappropriate brake light applications will cascade to following traffic and may cause over reactions from drivers behind. When possible cancel cruise control using the function button.

Speed limiters also have an override facility: firm application of the accelerator will allow the vehicle to exceed the set limit.

Do not use cruise control in heavy rain or on loose surfaces as it may cause the wheels to loose grip.

Technology

Technology is moving very fast, with everyone starting to expect more and more equipment as standard on their vehicles.

Items that were once rare or optional extras are now becoming part of the standard equipment in our vehicles. Used correctly this technology will serve to enhance your driving experience.

Documents Declaration

How to use this form

This form replaces physical checks of your driving licence, MOT and insurance documentation and should be signed and handed in prior to your drive or ride with IAM RoadSmart.

If you do NOT hold all of the required valid documentation listed then you should not sign the form and will not be able to drive or ride with IAM RoadSmart.

If you have any questions then please speak to your local IAM RoadSmart group or call Customer Care on 0300 303 1134.

Name _____

Membership number _____

Date _____

IAM RoadSmart documents declaration

I confirm that I am the holder of a valid current driving licence and that I have appropriate insurance for any vehicles used for IAM RoadSmart courses, either personally or via my employer, and that those vehicles, if appropriate, have valid MOT and tax. I also confirm that these will be in place throughout the duration of my IAM RoadSmart course.

I confirm that I am fit to drive or ride and not under the influence of any drug (including prescribed medication that may adversely affect my fitness to drive/ride). I will wear corrective eyewear while driving or riding if my eyesight requires it.

I am aware that I am responsible for all driving or riding decisions and I will make my Observer/ Examiner or Trainer aware if I become distracted. I agree that any advice/direction given will require my diligence to be applied safely. If I have any doubt I will ask for clarification before following the advice/direction.

Signature _____

IAM RoadSmart is the trading name of all businesses owned by The Institute of Advanced Motorists

Charity number: 249002 (England and Wales)
SC041201 (Scotland).

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