

POSITION

SPEED

GEAR

ACCELERATION

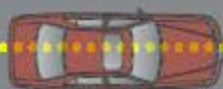
INFORMATION

IPSGA

IN OUR PREVIOUS ISSUE, IPSGA FOCUSED ON SPEED. HERE IS THE NEXT PHASE: GEARS

SPEED (SLOWING)

GEAR CHANGE



Like all the other phases of the system, the information phase overlaps this one, allowing the driver or rider to take in information, use it and give out information as appropriate. Unlike speed, gear changing is usually not apparent to other road users, and does not usually provide information to them without the driver or rider doing so deliberately. The most common exception to this is when a pedestrian or cyclist picks up changes in the noise a vehicle is making – but this is certainly not something a driver or rider can rely on.

Having achieved the speed we decided was appropriate at the last stage of the system, the next decision is what gear to select (motorcyclists have some slightly different considerations here about exact timing, but the idea is the same). As with the earlier elements of the system, the choice is about the gear to drive or ride

through the hazard, matching the speed – or speeds – already decided on. It is a choice for as much distance as has already been planned at the position and speed stages – so is a gear for a section of road, not a point. The gear chosen will need to cope with the point at which it is engaged, but the choice may be more complex than that.

Those who drive automatics – of whatever form – tend to have less work to do at this stage, but that does not mean they have nothing to do.

THINKING AHEAD

This phase of the system should be completed before entry to the hazard, leaving hands free to manage the steering wheel, and on a bike leaving the rider to deal with the balance and steering, without having to worry about gear changing. This can be especially important on bends – when entering the hazard, adjusting speed can be critical.

The purist view is that the braking (or speed loss by acceleration sense) should be complete before the gear change is started: the hand should not leave the steering wheel for the gear lever until the foot is off the brake. With motorcycles, where the gear-changing mechanism is different, this is achieved in the very last stage of braking. Without getting bogged down in detailed debate, there is a useful discipline to be practised in achieving that separation – it is a very visible point, and a good indicator of whether you are running into a hazard while still preparing for it. Debate has raged among car drivers about whether this separation is totally required, or whether some overlap is acceptable; either way the principle is that the gear is chosen and selected at the end of the phase of speed loss, where the gearbox allows it as a single change. Where the gearbox requires a sequential change (as with most motorcycles), this should be completed at the end of the

braking or speed-loss phase, without using the gears to create a braking effect. Speed comes before gear in the system, and getting that sequence correct is an integral part of it.

The gears may be used to maintain a speed – to prevent speed rising – on a lengthy descent. This is a useful example to understand the mental process: the choice is about speed (what it is going to be, and not to let it rise) first, then, secondly, how use of a particular (usually lower) gear will achieve a certain speed.

Drivers or riders of automatic vehicles have much of the choice of gear made by the mechanism – of whatever kind – but there are influences that can be made. Some systems allow the user to set a preference (eg a 'sport mode') or a dapt to the individual's driving style. Often, the way the throttle is used can affect the choice the machine will make. In some instances – the downhill one given above is the most obvious – the decision

to actively control the gear by engaging a holding mechanism should be made, completing this stage

COMPLETING THIS STAGE

However it is done, where some form of control is being exercised it remains important that the individual decision for a particular hazard is made at the appropriate point, and carried out either at or after the end of the speed element. It is possible to get bogged down in discussions about gears and gear choice without addressing this issue – the system is about priorities and sequence.

It is easy to get this phase of the system mixed up with the acceleration phase that follows it. That phase may well include gear changes as the vehicle is accelerated away from the hazard, but that is not what the gear phase is dealing with.

To contact the IAM visit www.iam.org.uk or call 0845 126 8600

