police system

- **What is meant by the police system?**
- **How does this make dealing with hazards safer?**
- **Will this make much difference to the way you approach hazards?**

Many people will have heard of the 'police system' but may not understand what it is and how it works. The police have set the standard that others follow and the system is widely used by advanced motorcycle groups such as the IAM and ROSPA in their training. This download covers what the system is and how it works.

The explanations of system are covered in much more detail in Motorcycle Roadcraft, the police rider's manual which is published by TSO and is available at all good bookshops. We highly recommend that you follow up all our free downloads by reading Motorcycle Roadcraft.

Please note: THIS DOWNLOAD IS NOT AIMED AT LEARNER MOTORCYCLISTS, it is intended for post-test riders only and for general advice. Learners must follow their instructor's advice until they have passed their test and gained some experience. These issues can then be explained and expanded on by a qualified post test instructor.

Disclaimer – The information contained in this download is based on established information laid down in the police Roadcraft manual and is intended as general advice only. Norfolk County Council accept no responsibility for any damage or injury howsoever caused by following this advice.

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Why do I need a system?

When riders take Compulsory Basic Training and go on to pass their test they will have been taught the DSA system of Observation, Signal, Manoeuvre, Position, Speed, Look. When you progress to post test training you may choose to use the 'police system'.

Both are perfectly good approaches to use but in this download we will look exclusively at the police system. Information on the DSA can be found in their own publications.

The police 'system' has been in use for generations but evolved into the current format in 1996 when the revised version of Motorcycle Roadcraft was first published. Previously it was defined as a **'system or drill each feature of which is considered, in sequence, by the rider at the approach to any hazard'**. The shortcoming of the old system was that it was very rigid and so a more flexible, realistic interpretation was devised.

Motorcycle Roadcraft, the police manual, currently defines system as providing **'a way of approaching and negotiating hazards that is methodical, safe, and leaves nothing to chance'**

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The police system is a decision making process that works by promoting early observation, anticipation and planning to deal with hazards. It allows a much calmer riding style when dealing with the unpredictable. It also encourages a systematic use of the controls of the bike. One of the big advantages it gives you is **time to react** It assists you in anticipating the actions of other road users; a crucial element of safe riding.

System can be applied to dealing with any hazard and we will look at some examples of how it works when applied to some specific examples.

System features in the other downloads, but we have kept a more detailed examination for this separate download to avoid confusion.
You will be able to see how it fits in when you look back on the other downloads, for example cornering, overtaking and dealing with junctions.

What is a hazard?

Quite simply, a hazard is anything that could be potentially dangerous to you. It might be something very obvious such as a vehicle overtaking towards you, or a potential hazard such as a warning of deer as you ride through a woodland area.

Hazards fall into three categories.

Physical hazards – corners, junctions, hill crests etc

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Those created by the movement of other road users – pedal cyclists, pedestrians, emerging vehicles etc

Road surface and weather – problems created by the road surface such as gravel, oil, mud, those created by weather.

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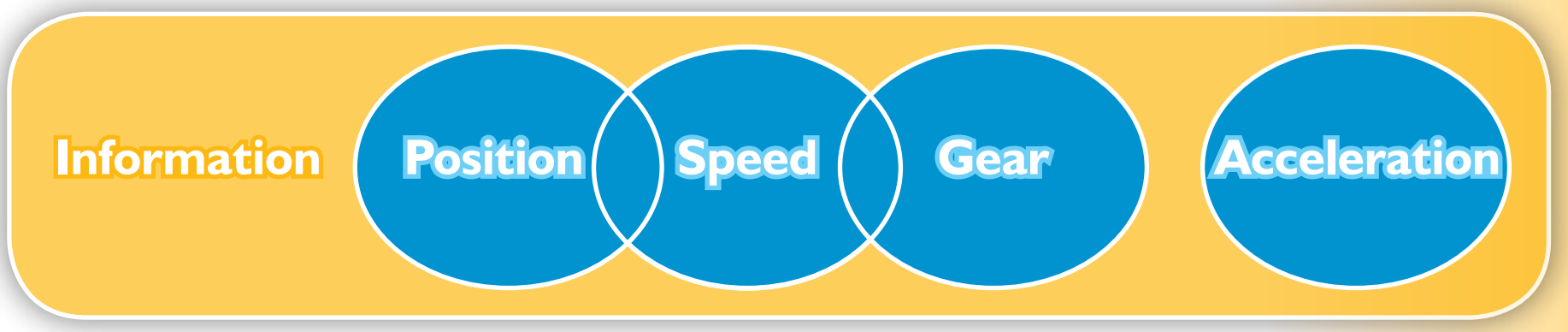
The five phases of the system



The five phases of the police system as outlined above create a flexible and logical approach to assessing and dealing with hazards.

T.U.G – Taking, Using & Giving Information

Under normal circumstances the information phase would be the point at which you 'enter' the system but it is a continuous phase with the rider constantly re-assessing by taking, using and giving information ('giving' referring to horn warnings, brake lights, arm signals or direction indicators).

Each phase develops logically from the one before. As the circumstances change you may need to re-enter the system at an appropriate point, for example a further reduction in speed may be required although your position may be fine.

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The Information phase

As can be seen from the graphic, the information phase is an encompassing 'bubble' around all the other phases because it is a continuous process. Whilst you are altering position, speed, gear or accelerating, you are continuing to **take in** information about the environment, **using** that information to plan what you are going to do, and **giving out** information to other road users as appropriate. All the other phases of the system depend on this continuous information phase.

We will go into more detail on observation and planning in another download but for now, take information from all directions, and all distances. Scan everywhere to gain as much useful information as possible on hazards and how they might affect you. You may initially need to force yourself to do this but it will quickly become second nature.

How often should I look behind me?

Look behind as often as necessary to always be aware of what is behind you but in any case before you alter position or speed. Make good use of your mirrors and looking over your shoulder as appropriate. The standard 'mirror-signal-manoeuvre' still applies but you may decide a signal is unnecessary if there is nobody to benefit from you doing so.

It's always a good idea to check regularly in your mirror, you never know who might have appeared since you last looked!

The Position phase

Once you have checked behind you, position your bike to negotiate the hazard safely and smoothly, considering any additional hazards such as road surface issues. Positioning will be discussed in more detail in another download. You will notice that the position phase overlaps the speed phase, so you can start adjusting your speed in the latter stages of adjusting your position.

The Speed phase

Adjust your speed as necessary to negotiate the hazard. This includes deceleration, using the brakes and in slippery conditions, changing down through the gears to lose speed.

The speed phase overlaps the gear phase, you can change down the gearbox as appropriate to remain in the correct gear for the speed that you are travelling at the time. If we take an isolated example, this will prevent you arriving at the corner and having to change down through several gears rapidly and deciding which is the appropriate one for your road speed.

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The Gear phase

Select the most appropriate gear for the speed at which you intend to negotiate the hazard. If you have to lose speed rapidly and do not have the time to change down sequentially (changing down one gear at a time matching the gear to the road speed as you slow down) you may need to block change to get to the right gear. Be careful not to go down too low in your gear selection, this could cause a skid by rear wheel lock up.

The Acceleration phase

If a lifesaver (shoulder) check is required, now is the time to do it before you start the acceleration phase. This is a straightforward phase but should be applied smoothly and safely according to the circumstances. In the case of cornering, the throttle should be increased just enough to maintain your speed through the corner as the cornering forces acting upon it will otherwise be slowing it down. Keep it smooth to avoid transferring weight back and forth as you load and unload the suspension. If you are applying the system to overtaking, keep it smooth and roll it off as you reach your return point.

Practical examples of applying the system

Whilst you should be considering all of the phases on the approach to a hazard, you can use it flexibly and don't have to run through it in a regimented drill as the old system required. If you have reached the gear phase and then find conditions require an adjustment of position again, you re-enter the system at the position phase and sort that out first, then considering whether a further adjustment in speed or gear is required before you reach the hazard.

It may take a little while for it to become automatic, rather like reading the limit point (see the Cornering download), but once you have grasped the idea, it will fall into a logical sequence and should make dealing with hazards safer and smoother.

It may be helpful to look at some practical examples of how the system fits into scenarios on the road.

Cornering

Information

On the approach to this bend the rider is taking in information about the bend ahead, other vehicles, road surface condition, side roads etc by means of good scanning, use of the wider view and reading the limit point (see the Cornering download).

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Position

In the absence of any hazards preventing him/her from doing so, the rider will position the bike to the nearside on the approach to this right hand bend gaining a better view into the bend, a safe distance from oncoming traffic and a good entry point to negotiate the bend.
Whilst getting into position the rider is constantly looking for hazards such as road surface problems that they hadn't spotted earlier that might require a positional adjustment which illustrates the encompassing bubble of information running continuously through the system. Whilst adjusting position the rider can start to reduce speed (overlapping the phases)

Speed

Having possibly started reducing speed before finishing the position phase the rider will continue to adjust their speed to be able to safely and smoothly negotiate the bend. As the rider adjusts their speed they will be changing gear to be in the correct gear for the road speed at the time (overlapping the phases)

Gear

Having probably already started changing down sequentially through the gears as the speed reduces, the rider uses good judgement to select the most appropriate gear to give optimum drive through the corner.

Acceleration

This is the final phase of the system, applying the power just enough to offset the loss of momentum caused by the cornering forces to maintain stability and finally, as the bike comes upright, smoothly applying the power as required to drive on and pick the speed up again.

Talking through System on approach to a corner.

Overtaking

In applying the system to overtaking we need to work through the phases in exactly the same way. The example here is an overtake where another hazard requires us to take up a following position.

Information

Approaching the slower moving vehicles the rider will take information from as many directions as possible, looking for hazards, side junctions, farm gateways, road surface hazards, vehicles ahead or behind etc.

Position

Satisfied that an overtaking opportunity is not yet possible, the rider can settle back into a following position and continue to observe (ongoing information phase) adjusting speed to that of the vehicle ahead.

Speed

At this point the rider will be maintaining their speed and a gear to maintain flexibility at that speed.

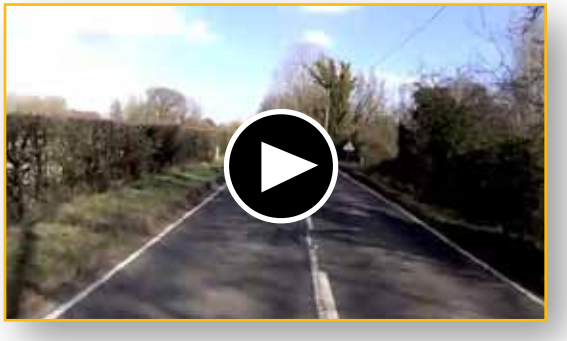
Gear

Maintain an appropriate gear for the speed you are travelling.

Once the **information** indicates an overtaking opportunity might be developing, the rider can move up into the overtaking **position**, adjusting the **speed** at the same time, tailing it off to match the vehicle in front and selecting a **gear** that will give the right amount of drive to start the overtake.

Once the **information** indicates it is safe to start the overtake, the rider changes **position** by moving sideways, confirming the view before **accelerating** to complete the overtake.

In the final stages of the overtake it was not necessary to re-visit the **speed** or **gear** phases as these had already been sorted out, it was simply a matter of changing **position** and going straight to the **acceleration** phase. Check out our overtaking download too.



Talking through System on an overtake

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Left Turn

In this final example we will be applying the system to a left turn from a major road to a minor road.

Information

Use good observation ahead, behind and to the sides to obtain information on the environment and the movement and position of other road users including pedestrians and cyclists. Consider a signal if there is anyone to benefit from it.

Position

Position the bike to the left of the road at the appropriate time carrying out a blind spot check if necessary (this would perhaps be most appropriate if travelling very slowly and there is a possibility of another motorcycle or pedal cycle coming up the nearside).

Speed

Continuing to keep a check behind, reduce speed as necessary to make the turn changing down through the **gears** as you go.

Gear

Select the correct gear for the turn.

Accelerate

Maintain the speed through the hazard by gentle acceleration and accelerate out of the corner to an appropriate speed.

Talking through system at junctions

The system can be applied to any hazard, right turns, roundabouts, dealing with pedestrians, cyclists, surface hazards, the list is vast but a systematic way of dealing with them should make things easier, safer and smoother.

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Summary

We have looked at the police system of motorcycle control, the components of it and how you can apply it flexibly to dealing with any hazard. Understanding and applying System is vital to be able to deal with hazards correctly. It should become second nature after a while, forming a logical way of doing things, making negotiating hazards safe and smooth.

To put System into practice, why not take part in a Norfolk Constabulary Safe Rider (Bikesafe) course? It's fun and won't break the bank, or take the 90 minute 1:1 Hugger's Challenge assessment (Enhanced Rider Scheme) which brings insurance benefits.

The i2i course covers issues of bike dynamics, stability, looking at the physics of what is going on, all in a safe environment away from the public roads. The team visit Norfolk for a week in Spring & Autumn. Catch them next time around, you'll have a great time!

Details are available on **www.think.norfolk.gov.uk** You are welcome to email us on **roadsafety@norfolk.gov.uk** or call **01603 638115.**

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