

European innovation would put UK motorway roadworks among the best

British motorway roadworks could be the best in Europe if innovative techniques used abroad were tried here, says the AA Motoring Trust. A new survey of roadwork layout and procedures shows that at present there is a scope for improvement, particularly in informing drivers of roadworks ahead, the approach to them and progress through stretches of road under repair.

In the first-ever EuroTest comparing the way European countries carry out motorway roadworks, Britain ranked third out of 11. However, this is against a backdrop of four roadworkers killed and five seriously injured in the first six months of 2005 on British motorways and major roads.

This high-tech survey by EuroTest, a consortium of 15 European motoring organisations of which the AA Motoring Trust is a leading member, commended British motorway roadworks for the extensive use of night-time working, a technique that is unusual in the rest of Europe.

Britain also scored well for its policy of removing permanent road markings when carriageway layouts are changed, making it easier for motorists to follow temporary layouts, especially in the dark. Free 24-hour recovery services for vehicles stranded in roadworks zones were also commended, although the lack of lay-bys for broken down vehicles to take refuge was noted.

The absence in Britain of solid barriers between opposing traffic lanes, particularly in contraflows and protecting work areas, was highlighted. However, it takes longer to install and remove solid barriers and they cannot be easily relocated to cater for changed layouts at night.

A more innovative and flexible use of solid barriers may help to improve British motorway roadworks, as may eye-catching roadside information to persuade drivers to slow down and inform them of progress through a contraflow system, and flashing directional lights. These are techniques used abroad that could be tested in Britain.

EuroTest, using traffic management experts from Dresden University, rated three sets of road works on M5 near Weston-super-Mare, Cheltenham and Bristol as "good". Sites on the M4 near Bristol, the M25 near Heathrow, the M60 near Manchester and the M62 near Pontefract rated "acceptable".

Of the 50 roadworks sites surveyed across Europe, from Croatia to Britain, only one, in Austria, achieved "very good" status. A third of sites were rated "good", half were "acceptable" and six sites were "poor". Austria came first in the survey, with Germany second. Italian roadworks were the worst.

"Two decades ago, roadworks on British motorways were routinely the scene of serious accidents with vehicles, often lorries, crossing into oncoming traffic," says Bert Morris, director of the AA Motoring Trust.

"Today, huge improvements in risk assessment, traffic management, signing, speed management and driver behaviour mean that the low risk of death and serious injury on UK motorways is no higher at roadworks than elsewhere. However, the deaths this year of four roadworkers shows there is no room for complacency."

Morris adds: "Many journeys are now made daily across national borders and roadworks are often managed very differently throughout Europe, posing greater risk for drivers who are unfamiliar with the diverse systems. This is why The AA Motoring Trust has worked with Europe's motoring organisations to benchmark the safety and efficiency of major roadworks on Europe's motorways."

The AA Motoring Trust believes Britain's motorway roadworks can be further improved by:

- Exploring the benefits of varying the speed limit to match prevailing conditions. The survey shows that Britain carries out a great deal of work on motorways at night to improve traffic flow during the day, yet speed limits often stay the same no matter what the layout or amount of work being done.
- While injury accidents at motorway roadworks are considerably reduced compared to the past, there are still many damage-only vehicle accidents that could have led to death or serious injury in the past. The Highways Agency should research the number and likely causes of damage-only accidents to determine if there are common themes.
- Drivers feel more secure with solid barriers to prevent vehicles straying into oncoming traffic. Although British night-time working makes flexible use of solid barriers difficult, the Highways Agency should look at how other European countries use these barriers to see if they can be adapted to suit British needs.
- The Highways Agency should pilot innovative concepts that have been revealed by the EuroTest research, such as the Austrian "changing face" distance indicator, flashing warning lights at the start of a roadwork zone, and flag-waving mannequins to warn drivers of roadworks.

Ginny Clarke, Director of Safety, Standards and Research for the Highways Agency, which manages England's motorways and major A roads, said of the EuroTest survey: "We are very pleased that Eurotest's research found these major roadworks

on England's motorways were well set out and encouraged safer driving. We continuously seek to make roadworks safer, both for road users and for those who work on our busy roads. We will study this report and its findings carefully."

"It is also an opportunity to remember the risks faced every day by the roadworkers who ensure that busy routes remain safe and in good condition. We appeal to drivers to slow down when approaching roadworks and obey the signs and speed limits to ensure the safety of workers and drivers."

NOTES TO EDITORS: A total of 50 motorway roadwork zones were inspected in 11 European countries: nine in Germany, seven in Great Britain, six in Austria, five in France and in Italy, four in Switzerland, Spain and the Netherlands, three in Belgium, two in Croatia and one in Slovenia. All of the sites tested were long-term works on main European travel routes. The shortest site inspected was one kilometre, the longest 21.5 kilometres.

ADAC (the German AA), which oversaw the project, commissioned the Transport Infrastructure Institute at the Faculty of Transport and Traffic Science at Dresden University of Technology to perform the tests. The inspections were carried out between 8 March and 15 June 2005 and were undertaken in both directions, twice during the day and once at night. A BMW 525d Touring fitted with state-of-the-art measuring systems was used in the test. The equipment included a positioning system (comprising GPS, reference station, inertial system and position measuring equipment), digital stereo cameras with their own computers for storing images which were used to measure distances and lane widths, an analogue scenery camera and a central measuring computer. The position of signs and the location of lay-bys etc were recorded using a touchscreen. A comprehensive appraisal of the site was conducted as a starting point in daylight. The data was captured, documented per video both in digital and analogue form and subsequently analysed in the laboratory.

UK roadworks sites - results by test category

1. M5 nr Weston-super-Mare

Signing/roadmarkings: acceptable
Traffic routing: good
Road surface: good
Night-time clarity: very good
Information: acceptable
OVERALL RESULT: GOOD

2. M5 nr Cheltenham

Signing/roadmarkings: acceptable
Traffic routing: good
Road surface: very good
Night-time clarity: very good
Information: very poor
OVERALL RESULT: GOOD

3. M4 nr Bristol

Signing/roadmarkings: acceptable
Traffic routing: acceptable
Road surface: acceptable
Night-time clarity: very good
Information: acceptable
OVERALL RESULT: GOOD

4. M5 nr Bristol

Signing/roadmarkings: acceptable
Traffic routing: good
Road surface: very good
Night-time clarity: very good
Information: poor
OVERALL RESULT: GOOD

5. M60 nr Manchester

Signing/roadmarkings: good
Traffic routing: acceptable

Road surface: good
Night-time clarity: very good
Information: good
OVERALL RESULT: ACCEPTABLE

6. M25 nr Heathrow

Signing/roadmarkings: acceptable
Traffic routing: acceptable
Road surface: good
Night-time clarity: good
Information: acceptable
OVERALL RESULT: ACCEPTABLE

7. M62 nr Pontefract

Signing/roadmarkings: acceptable
Traffic routing: good
Road surface: very good
Night-time clarity: very good
Information: very poor
OVERALL RESULT: ACCEPTABLE

Using the checklist, the following five theme blocks were checked:

Signs/road markings Weighting: 35 percent

- Signs in advance of the roadwork site
- Signs through the roadwork site
- Signs at the end of the roadwork site
- The frequency, clarity, easy recognition and condition of road signs
- Quality of road markings and their clarity

Traffic routing Weighting: 35 percent

- Width of traffic lanes
- Lead-in taper into opposite lan
- Contraflows
- Exit taper into the original lane
- Points of entry/exit within the roadwork site
- Points of entry/exit for roadwork vehicles
- Flow of traffic
- Safety-relevant equipment

Road surface Weighting: 5 percent

- Condition
- Cleanliness

Night-time clarity Weighting: 15 percent

- Visibility of signs and road markings
- Protective equipment with reflectors
- Illumination of the lead-in/exit tapers
- Clear layout

Information Weighting: 10 percent

- Information about the type and duration of roadworks
- Information regarding the overall length of roadworks
- Information repeated throughout the length of the roadworks

The roadwork sites were rated Very Good, Good", Acceptable, Poor and Very Poor.

[Read the full report here](#) (PDF 382K)

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