

Improvements in surface condition

This year's NRMCS visual survey results are the best for over a decade and show improved surface condition on most categories of roads and footways.

Whilst it is evident that increased levels of expenditure have shown improvements in visual condition, there has been continuing deterioration in the structural condition of principal roads measured by deflectograph surveys.

Although the structural deflectograph surveys are becoming less representative there is a concern that the Best Value Performance Indicators are driving authorities to carry out surface rather than structural repairs. The Roads Board is aware of this concern and will be advocating a more comprehensive approach to performance management through development of highway asset management plans.

As the use of CHART sample surveys comes to an end the Roads Board will also be considering how footways and unclassified roads condition will be measured, alongside the measurement of classified roads using the current SCANNER machines.

Whilst this is a time of transition for NRMCS the Roads Board welcomes the resources and research that have been, and will be, applied to survey development. This has helped bring highways to the forefront and improved data have attracted additional resources for highway maintenance.

Matthew Lugg
Chair UK Roads Board

IN THIS ISSUE...

NEWS

- BV223 and BV 224a
- BVPI requirements for 2006/07
- NRMCS surveys in 2006
- SCANNER survey progress 2005/06
- SCANNER specification
- Accreditation to the SCANNER specification
- SCANNER road condition indicator
- Roads Board Seminars in 2006
- Progress of further SCANNER research
- SCANNER Data Volumes
- UKPMS Annual Health Check and RP6.01
- UKPMS Development Programme 2006/7
- Footways and Cycle Tracks Information Strategy
- Whole life analysis of footways and cycle tracks
- FCMG Membership Changes

IN-DEPTH

- SCANNER data - the Golden Thread of maintenance management
- SCANNER end of phase 1
- Efficiency with an eye to performance
- National Road Maintenance Condition Survey 2005
- Harmonising the UK approaches to measuring and reporting road condition
- Footway and Cycle Track Risk Assessment

Latest news

BV223 and BV 224a

BV223 replaces BV96 as the indicator for the condition of principal roads for 2005/06. Some people have asked why the values from the BV223 calculation using SCANNER data are so much less than from BV96 using TTS data, when TTS and SCANNER are similar types of survey?

Simply, the answer lies in the thresholds and the weightings. BV96 was set up to identify lengths of road which needed further investigation – but the results across England showed that the thresholds were far too low – and any minor defect triggered the threshold. The results were reviewed very carefully against engineering experience and professional assessment of road condition, and the thresholds and weightings in SCANNER have been set to identify lengths of road that are likely to need planned maintenance soon (the “red” length) which are reported as the BVPI percentage length. Whereas TTS BV96 was reporting the “red”, the “amber”, and a bit of the “green” as well!

In 2004/05, the average BV96 figure across England was about 40%, with a range from about 15% to over 70%. Based on CVI and DVI surveys, the average BV97a figure across England in 2004/05 was about 16.5%, with a range from 1% to over 60%. In contrast, we expect the range for both BV223 and BV224a in 2005/06 to be from about 5% to about 20%.

How do we explain this to the public and to elected members when our roads were actually in much the same condition this year as last year? Very simply, the headline number of the indicator has been changed, from BV96 to BV223 and from BV97 to BV224, to show that this is a new way of reporting road condition.

The Roads Board has also recommended that local authorities should re-process 2004/05 TTS survey data with the new SCANNER road condition indicator to calculate what BV223 would have been, based on 2004/05 TTS data, as a basis from which to develop trajectories for the condition of principal roads.

BVPI requirements for 2006/07

The BVPI survey requirements for 2006/07 in England have been published on the DfT website at: <http://www.dft.gov>.

[uk/stellent/groups/dft_roads/documents/divisionhomepage/032471.hcsp](http://uk.stellent/groups/dft_roads/documents/divisionhomepage/032471.hcsp)

NRMCS surveys in 2006

The sites for the 2006 CHART survey have now been sent out. If you have any queries on the sites please contact Roger Thompson. Requests for information on Scrim surveys carried out in 2005 have also been sent out. Please send these forms back to Roger by 30 June. If you require an electronic copy of the form please email Roger at Roger.Thompson@dft.gsi.gov.uk

SCANNER survey progress 2005/06

All three companies made good progress surveying on English roads in 2005/06. Surveys were carried out on the majority of A roads in one direction, on all B roads in one direction and on a 10% sample of C roads in one direction (with a minimum requirement for 50 km of C road surveys per local authority, wherever possible). In all some 70,000 lane kilometres were surveyed in England.

SCANNER specification

The SCANNER specification has been revised for 2006/07 and is now available on the Roads Board website at http://www.ukroadsliaisongroup.org/roads/scanner_specification.htm

The detailed changes include:

- Strengthening advice to local authorities on survey procurement in Volume 1.
- Incorporating the requirement for national governments to have direct access to survey data for statistical monitoring purposes, and clarifying and improving some of the technical requirements in Volume 2.
- Incorporating the requirements for consistency testing as part of the accreditation process in volume 3.
- Incorporating brief technical advice on the SCANNER Road Condition Indicator in volume 5.
- New volume 6 splitting off from old volume 2 the definitions for the calculation of the derived parameters and definitions for the data file formats. Also includes a description of the Machine Survey Preprocessor.

A completely new SCANNER2 specification is being produced for 2007/08, to incorporate the results from the further research. It consists of five volumes:

- A brief overview of SCANNER as a “handy guide” for those new to the subject.
- Advice to local authorities on procuring surveys.
- Advice to local authorities on receiving and using the data.
- The technical specification for the surveys, including QA and audit.
- The technical requirements for the survey vehicles, including acceptance testing and accreditation.

Accreditation to the SCANNER specification

On behalf of the Roads Board the Department for Transport let an Acceptance, QA and Audit testing contract to TRL from April 2005 until at least September 2007. Under this contract the Department and Scottish local authorities pay to make a testing facility available but require TRL to charge operators the additional costs of using the facility. The survey operators may therefore need to increase survey rates to cover these costs and there may be a small surcharge on existing contract rates.

Four machines were accredited to the SCANNER specification for surveying in 2005/06, and have been submitted for re-testing in 2006/07. Subject to satisfactory data and results, the accreditation certificate will run from the date of the first successful tests.

All three companies have announced that they are building new survey machines for 2006/07. Jacobs Babbie started acceptance testing in February 2006, WDM started in May 2006 and DCL expects to start later this year.

SCANNER road condition indicator

The Roads Board has approved the recommendation of the Road Performance Management Group for a new working group to review the performance of the SCANNER road condition indicator. This is chaired by Stephen Child (Surrey CC) and includes representatives of the SCANNER PMG (Garry Warner, LB Bexley), the UKPMS SG (Stephen Finley, Rotherham), SCOTS (Graeme Ferguson, Perth & Kinross), CSS Wales (Wynn Davies, Gwynedd), the SRMCS (Alistair Gow) and the DfT (Drew Hird and

Andrew Oldland).

The main tasks to be completed this year include:

- Reviewing the operation of the SCANNER RCI on principal roads in the UK (BV223 in England).
- Developing advice on setting targets and trajectories using the SCANNER RCI.
- Reviewing and developing thresholds and weightings for the SCANNER RCI on other classified roads (B and C roads).
- Reviewing the effect of results from combining B and C roads in a single indicator.
- Reviewing and developing thresholds and weightings for unclassified roads
- Reviewing the operation of the new SCANNER parameters for possible inclusion in the overall SCANNER RCI.

Roads Board Seminars in 2006

The Roads Board is planning a series of local authority seminars in September and early October 2006, on “Using SCANNER surveys for asset management”. The seminars will probably be held in or near London, in or near Bristol, somewhere in the North Midlands, and in the North of England. A similar event is being planned for Scotland provisionally on 15th September 2006. Details of the event in Scotland can be obtained from Alistair Gow at ag@gowtrans.co.uk or by telephone 01546 606222 . A further event may be organised in Wales later in the year.

The English seminars will include an introduction to SCANNER and the implementation project, explaining what SCANNER is all about, and setting it in the wider context of asset management, CPA, LTP2, APR, NRMCS, etc. There will be an explanation of the SCANNER specification – what is in it and how to use it, and a review of the use of SCANNER to report BVPIs. There will be an explanation of how SCANNER data can be used in UKPMS for local maintenance management, with examples of the results from local authorities. Finally there will be an opportunity to look forward towards 2010, and the future development of NRMCS, UKPMS and SCANNER to support highway asset management.

The seminars will be arranged with opportunities to discuss the issues at each stage with people who have been

involved in the development of SCANNER and with the other participants.

To help us plan these one day events, it would be very helpful to know how many people are likely to be interested in attending. If you would like to attend, please would you send the following information to the Halcrow SCANNER project management team by e-mail to kingpc@halcrow.com or by fax to 01905 361362 (FAO Peter King).

- Name
- Local authority or other affiliation
- Role or job title
- Telephone number
- Fax number
- e-mail address
- Postal address
- In which part of the country would you prefer to attend a seminar?
(To help us decide the size of venues)
London/South East, South and West (Bristol)
North Midlands (East or West), North of England

Progress of further SCANNER research

The second phase of the SCANNER research programme has been completed and seven of the eight reports from the projects have been published on the Roads Board website at: http://www.ukroadsliaisongroup.org/roads/scanner_research.htm .

The results from these projects are being incorporated in the SCANNER2 specification for 2007/08. The seven reports now published are:

- Consistency of TTS results (Chris Britton Consultancy)
- Other visible defects on local roads (Scott Wilson Pavement Engineering)
- Uses of surface texture measurement on local roads (TRL Limited)
- Edge condition, deterioration and defects on local roads (TRL Limited)
- Road geometry of local roads (Scott Wilson Pavement Engineering)
- Road shape (surface form) of local roads (TRL Limited)
- Using TTS results for maintenance management (Mott MacDonald)

SCANNER Data Volumes

Many authorities have reportedly experienced difficulties arising from the volume of TTS and SCANNER data being delivered and processed. As SCANNER continues to be developed,

additional data items will be collected. Users should be aware that from 2007/8 SCANNER data volumes are likely to be approximately two and a half times the volume of data collected in 2004/5. It is recommended that users should speak to their internal IT departments and UKPMS suppliers if they are concerned that the volume of SCANNER data will present them with any difficulties.

UKPMS Annual Health Check and RP6.01

The first UKPMS Annual Health Check has been successfully completed by all five UKPMS-accredited systems. The 2005 Annual Health Check included:

- Using RP6.01
- Loading GripTester data in a standard HMDIF format
- Loading the new SCANNER defects relating to edge condition and transverse unevenness
- Producing the new SCANNER Road Condition Indicator
- Producing BVPI results

The Annual Health Check is intended to provide ongoing routine assurance that systems continue to meet UKPMS requirements, including the current Rule Set and BVPI reporting requirements, and is intended to supplement rather than replace the original UKPMS Comparability Tests. More information about the Health Check and the 2005 results can be found on the UKPMS website.

UKPMS Development Programme 2006/07

Although the budget for 2006/7 has not yet been finalised, one of the main activities in the UKPMS Development Programme will be the introduction of new defects based on the outcome of the SCANNER research programme and implementing appropriate functionality including Treatment Rules. These and other functional changes will be introduced in RP7.01, which will be implemented by the end of December 2006 and confirmed via the 2006 Annual Health Check.

Other activities planned for this year will likely include:

- Additional Owners Forum Training Seminars in the Autumn 2006
- Reviewing the requirements for Visual Inspector Accreditation.

Investigations into:

- Possible alternative SCANNER data formats
- Location Referencing methods appropriate for SCANNER
- Network data export format
- Possible new approach to Condition Projection

Footways and Cycle Tracks

Information Strategy

With the introduction of SCANNER as the principle source of condition data for carriageways on local roads in the UK, the Footways and Cycle tracks Management Group (FCMG) is taking the opportunity to carry out a fundamental review of information needs to support the maintenance, management and use of footways and cycle tracks, in order that the most appropriate regime of data collection can be defined.

The review will consider information in a number of areas, including:

- Maintenance management
- Asset management
- Strategy, policy and forward planning
- Risk management
- Customer relations and public opinion
- Performance reporting and performance management
- Quality of environment and street scene
- Accessibility.

The first stage of the review is to determine the information that practitioners and policy-makers require, and the decisions which that information will support. A questionnaire has been sent out to targeted individuals in local authorities during May and is also available on www.footways.org.

Following on from this, discussion will be held with selected authorities. The cooperation of local authorities is essential as any changes to current methods must be seen to be useful, cost effective and widely supported. Following the review, further information will be sought regarding the acceptable cost of surveys and the requirements and priorities of all stakeholders. It is likely that a revised information strategy will be proposed and trialled in selected areas.

Whole life analysis of footways and cycle tracks

The FCMG is to publish a report (report number PPR 105) by the end of June on whole life analysis of footways and cycle tracks. This will be available on the FCMG website (www.footways.org). The report will give guidance on whole life costing and include examples of applying whole life costs to footways.

New construction and maintenance costs were obtained from local authorities, together with typical maintenance regimes. As examples, the whole life costs for footways surfaced with asphalt and with flags were compared. Whole life costs have also been calculated taking into account the estimated cost of accidents, using a prototype risk model (see page 11). What the work has shown is that it may be worth considering indirect costs as well as the direct costs of construction, inspection and maintenance.

FCMG Membership changes

Since the last Newsletter report, two long-standing members of the FCMG have resigned from the group, in view of their impending retirements. Our thanks and best wishes are extended to Tom Clark from Edinburgh City Council and Stan Harvey from the London Borough of Bromley. Christine Francis from Glasgow City Council is the new regional representative for Scotland while Peter McCready has replaced Stan Harvey. Both are welcomed to the group.

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SCANNER data - the Golden Thread of maintenance management

Golden thread is one of the buzz words of management speak, but for me it is a good description of SCANNER data as it becomes established in the highways maintenance management and this short article, I hope, explains why.

Highway maintenance management is exactly that, and we should be managing our highway network in the most cost effective way we can. We all have different size networks, different levels of funding and different levels of resource to manage the local network. The way we deliver the highway maintenance service therefore differs from authority to authority. We do have some things in common: our network is the public highway and we all have a duty to maintain it; joined together it is the national highway network. Our funding comes from the FSS supported with capital from the LTP.

Government uses the NRMCS to inform it how the national picture is changing and from that information determines the level of funding it makes available to us. This is allocated on a formula basis to each Council. If the world were a level playing field we should be honest, and from good quality SCANNER data those that need it should get it, those that don't, don't get it.

Work has started on using the local SCANNER data as part of the NRMCS survey so we won't be doing 2 surveys, just one, and the same SCANNER data will be used to show how the national picture is changing to inform Government. National Government and local politicians will be clear about the impact of the preset level of funding on the road network condition.

When the funding comes down from Government to each Council we need to make our own case for highway maintenance funds against the cases from other local authority departments. As there are finite resources the quality of your case is, I would suggest, directly proportional to the level of funds you finally get.

Even though CVI data has been around a while not too many Councils have used it outside producing a BVPI, therefore, traditionally there has not been the consistent quality of evidence about the state of the network or the evidence provided has been very general with large figures required to arrest the backlog. Members cannot therefore comprehend what backlog means and so are not able to determine how to deal with it. Stacked up against closing care homes or schools, the decision to defer highway maintenance is often quite clear in their minds.

This golden thread starts with the survey vehicle driving the local network and collecting SCANNER data. UKPMS then processes the data and the local highway maintenance engineer has the opportunity to develop a strategy to engage with Members with factual information on the condition of the local network. Being derived from SCANNER data it produces information on the true levels of funding required to achieve the local maintenance objective. This funding need feeds into the Transport Asset Management Plan and the SCANNER data is part of the data needed for the asset valuation figure. NRMCS will use the same data for the national picture and the national level of funding required.

I am not naive enough to think that the funding will come automatically or immediately, however we must engage with our Members and explain how important the SCANNER data is to inform collective decision making and ensure that there are the staff, cash and IT resources in place for all authorities to analyse the SCANNER data and use it to make the right long term decisions to protect the vitally important highway asset.

So SCANNER is part of the golden thread which all the decision makers must use to maximum effect to properly maintain the highway network.

Chris Capps
Head of Transport Asset Management
Cambridgeshire County Council and Chair of
UKPMS Steering Group

SCANNER end of phase 1

It is three years since the first TTS advice note and specification was published by the Roads Board in May 2003 and John Ekins and Les Hawker presented their TTS Scoping Study report. Following a competitive tender, Halcrow was appointed to project manage the TTS implementation project in November 2003.

The TTS Implementation Advisory Group was formed in January 2004 and the Project Management Group met for the first time in February 2004. The IAG has met 9 times and the PMG 17 times so far – local authority representatives have probably contributed more than 500 working days to guiding and developing the project so far.

The initial research projects recommended in the Scoping Study report were commissioned in February 2004. Following a research workshop in April 2004 with experts from Australia, Canada, Denmark, Germany, Sweden, the USA, and all four countries of the United Kingdom, the further research projects were specified, tendered and finally let in September 2004. Results from all 13 of the research projects have been implemented through the specification, the acceptance testing, accreditation, QA and audit, and the development of the SCANNER road condition indicator. A new SCANNER specification was published in July 2005, developed from the original TTS specification, and a revised SCANNER specification was published in April 2006.

In 2003/04 no machines were accredited, a few local authorities used TTS to survey their roads and 10 declared their BV96 results were based on TTS. By the end of 2004/05 four machines were accredited, they managed to survey 48,500 lane kilometres on principal roads in England and 135 local authorities were able to report BV96 results based on TTS. In 2005/06 the four accredited machines managed to survey over 70,000 lane kilometres on classified roads in England, and hopefully all English local authorities will be able to report both BV223 and BV224a based on SCANNER survey results.

But, despite all this very successful effort, we have not yet reached the objectives defined by John Ekins and Les Hawker. Careful analysis showed that SCANNER surveys were likely to cost more on urban unclassified roads than they

had anticipated. Some local authorities doubted the relevance of machine surveys compared with the visual inspections that had been developed over the years, particularly on unclassified roads. And there were practical difficulties in getting enough machines built quickly enough, in implementing the new parameters from the initial research, and in developing UKPMS to report and use the results.

So there is still some unfinished business. The four main areas identified in the Scoping Study that have not yet been achieved are:

- A consistent overall UK wide strategy for measuring and reporting the condition of road carriageways.
- The use of SCANNER data to replace CHART or NRMCS reporting in England and Wales
- The effective use of SCANNER data in UKPMS to replace CVI and DVI for local maintenance management at either the strategic (network) or specific (schemes, projects and programmes) level
- The routine use of automated road condition surveys on unclassified roads throughout the UK.

The SCANNER IAG has held a series of workshops to develop the next stage of SCANNER, including:

- Treatment selection from SCANNER measured parameters (Edge treatments; surface treatments; resurfacing; strengthening treatments.)
- The use of SCANNER data for local maintenance management (Scheme selection, review and prioritisation; deterioration models, condition projection and economic prioritisation; asset management plans and the costs and benefits of SCANNER surveys.)
- Reviewing the SCANNER specification requirements (Procuring the surveys; technical requirements including QA and audit; receiving and using the information.)
- Reviewing what more needs to be done (to measure road condition with SCANNER; to be able to use the results to report road condition and for network asset management.)

The SCANNER Implementation Group will be reporting its recommendations to the Roads Board in June 2006. Just three years on from the Scoping Study, a great deal has been achieved, but there is still more to be

done to establish SCANNER as the consistent, reliable method of measuring road carriageway condition as the basis for effective asset management and service delivery throughout the UK.

Andrew Gallagher
SCANNER implementation project manager

Efficiency with an eye to performance

The relationship between efficiency and performance is not necessarily obvious, but recent developments may open the way for a significant improvement in measurement of the performance of highway services.

Highways Performance Measurement Matrix B					
		Local Transport Plans, Highways Agency Business Plan, Transport Asset Management Plan			
		Operate	Maintain	Improve	
		Traffic Management Plan Network Management Plan / Manual Traffic Operator	Highway Maintenance Plan	Capital Improvement Programme	
Public Service Objectives	Customer Service	Customer satisfaction	CS 1 CS 2 HA Customer Satisfaction Measures		
		Overall Transport Service	LTP / APR Score		
		Responding to enquiries	CS 3 API 3		
	Safety	Ensuring Safety	BV 99 SA 1 SA 2 SA 3 SA 4 HA Safety Measures API 2 API 11		
	Serviceability / Journey time reliability	Ensuring availability	BV 100 BV 178 API 1 API 13	SE 2 API 9	API 6
		Achieving integration	BV 165 LTP 1 LTP 3 LTP 4		
		Maintaining reliability	LTP 2 LTP 6 LTP 7 HA Congestion Measures	SE 5 SE 6	
		Maintaining Highway Condition		BV 187 BV 215 BV 223 BV 224 SE 11 L(a) L(b) L(c) L(d) B1 B2 B3 B4 API 12 API 14	
	Sustainability / Respecting the Environment	Minimising costs over time		SU 1 SU 2 SU 3	SU4 API 7 API 10
		Maximising environmental contribution	LTP 8	SU 6 SU 7 API 4	API 15
Maximising value to community			SU 5 Quality of Life Indicators		

The holy grail of performance measurement is to be able to measure performance in the way that customers perceive our services. Perceptions are related to people's whole experience with the highway but at present we are only consistently measuring Best Value Performance Indicators which are mainly safety and condition related. Many other indicators are in use in different authorities to measure both elements of the service and contract management matters, but it is difficult to get a broad view of the service.

A development in the Gershon efficiency programme may provide a way to unlock the problem. Local Authorities have to produce annual 'Gershon' efficiency returns which require that efficiencies are complimented by a 'quality cross check' to demonstrate that the service received by the customer is at least as good as it was before. Toolkits are available for all services and for Highways a matrix has been devised which takes a step towards measuring the whole highways service. The matrix was devised jointly with the Roads Board team developing the Code of Practice 'Well Maintained Highways', which contains the maintenance elements.

The measurement matrix starts from the four objectives of highway management on which the revised Code is founded – Customer Service, Safety, Serviceability, and Sustainability. These are then broken down into a few more categories, eg Condition is a subset of Serviceability, as the CoP. The other axis of the matrix is the three activities all Highway Authorities do, ie Operate, Maintain and Improve their networks, again as the CoP.

Relating the two sides of the matrix with suitable measures and performance indicators allows 'baskets' of indicators to be looked at for either the whole or part service, which relate to issues customers are concerned about. The indicators are available to all highway authorities, ie BVPIs and those recommended in the CoPs for Roads, Bridges and Lighting. Highways Agency indicators are also shown if authorities wish to use them.

Development of the 2006 Toolkit, due to be published in May, has been overseen by a reference group of members of the Highways Efficiency Liaison Group and additional representatives from local government and industry. This year the matrix concept has also

been used to value non-cashable efficiency gains achieved through improvement in service performance. There is also a wealth of efficiency advice and examples. The Highways Toolkit can be found on www.rce.gov.uk and questions can be sent to CETeam@highways.gsi.gov.uk

Measurement work for the efficiency programme is likely to be able to be used by authorities seeking ways to improve their performance management regimes, and perhaps to set levels of service as required for Asset Management Plans.

Mike Bordiss
mbordiss@dsl.pipex.com

National Road Maintenance Condition Survey 2005

The 2005 NRMCS report was published on 20 April. Both the full report and a summary document are both available on the DfT website at:
http://www.dft.gov.uk/stellent/groups/dft_transstats/documents/page/dft_transstats_611558.hcsp

The key results for 2005 were:

Visual condition

- The defects index for local roads in England and Wales has now fallen from 109.5 in 2000 to 92.9 in 2005; statistical analysis shows that the significant improvement in local road conditions in England since 2000 has been sustained in 2005.
- Over the last five years, visual conditions have significantly improved on all road types, except for non built-up unclassified roads, which are at a similar level to 2000.
- The largest contributor to the value of the local defects indices on built-up roads was major deterioration, accounting for about half of the index in each case. Rutting contributed to over 40 per cent of the index on non built-up principal and classified roads, while edge deterioration and major deterioration were the main factors on non built-up unclassified roads.
- Results for Wales have not been following the overall England and Wales trend; there is no significant difference in the Wales defect index compared with 2000.

Trunk roads in England

- Highways Agency TRACS surveys of the surface of English motorways and all purpose

trunk roads show these roads to be in very good condition. 5% and 8% respectively were in need of further investigation in 2004.

Skidding resistance

- NRMCS reports on the percentage of the major road network below the investigatory level. In England in 2005, the percentage needing investigation was highest for principal roads (19%) and lowest for motorways (1%). For principal roads, this rises to 48% in London boroughs and to 28% in metropolitan authorities.

- Welsh motorways are in similarly good condition to England (0.5% needing investigation), while 16% of Welsh principal roads were below the investigatory level.

Structural condition

- The percentage of principal roads requiring close monitoring in England has increased steadily from 14.9 per cent in 2000 to 18.5 per cent in 2005.

- In Wales, motorways (6.3%) have lowest percentage needing investigation and principal roads have the highest (17.0%); both are at similar levels to 2000.

Footways

- On local roads, the percentage of footways affected by deterioration has continued to rise and is now at 24.9%, a similar level to 2001.

- The steady rise in the number of trip hazards between 1996 and 2000 seems to have halted. The 2005 value was 1.6 trip hazards per 100m, which is the same as in 2004.

Maintenance expenditure

- Total maintenance expenditure on English local authority roads has increased in each of the last five years, with a 7% increase in 2004/05.

- Expenditure on Welsh local roads fell by about 7% over the same period.

Drew Hird, DfT Statistics

Harmonising the UK approaches to measuring and reporting road condition

It can sometimes seem that the UK Roads Liaison Group (UKRLG) and its Boards are trying to roll back the devolution agenda. No sooner have certain powers shifted away from Westminster, than the UK Roads Board is proposing harmonising how the UK operates. Indeed, since roads in Scotland or Northern

Ireland were never part of Whitehall's domain, it might look like a power grab by London. Nothing could be further from the truth. The UKRLG exists to bring experts together to discuss matters of common interest, not to impose uniformity.

As an illustration of this, the UK Roads Board recently put a paper to the UKRLG recommending harmonisation of approach to automated road condition surveys across the UK.

As an article elsewhere in this newsletter shows, we are coming towards the end of the first stage of the development of SCANNER surveys in England. These are now established for classified roads, and proposals have been made for investigating how they might be used on unclassified roads. Similar arrangements have been introduced for the other administrations.

There are a number of reasons why a harmonised approach to highways condition measurement and reporting would be beneficial. First, it helps to give the survey contractors some certainty in the amount of surveying likely to be needed. With each survey machine costing around £0.5 million, the decision to invest in a new machine is not one that the industry takes lightly. The ability to deploy machines across the UK can mean more efficient utilisation, and therefore lower survey rates. This efficiency also extends to standardised definitions of the data output from the surveys. So the UK Roads Board also recommended that there be harmonisation on the way in which data are processed, through systems such as UKPMS (and, for this reason, the Board suggests that the recommendations of the UKPMS strategic review be followed up).

The second principal reason for recommending a harmonisation of approach lies in comparisons of condition across the UK. At present, there is no single source of comparative data for the whole nation. The NRMCS only reports data for England and Wales, while its Scottish counterpart doesn't report condition on a strictly comparable basis. A more consistent approach could mean better understanding of how the different parts of the UK are faring. However, the Board's recommended approach doesn't aim at total uniformity across all networks. They recognise that there should be a strategic difference in survey approach, according to where on the hierarchy a

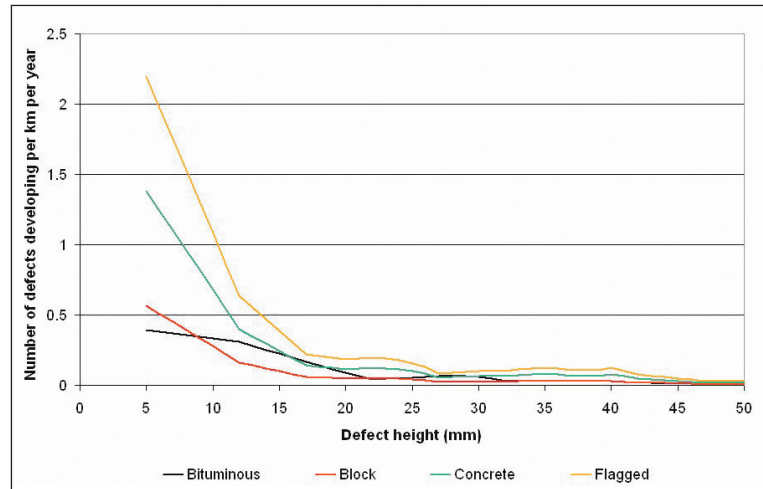
particular road sites. The Board also recommended that there should be harmonisation of approach between local authorities and trunk road agencies. As the whole of government accounting agenda kicks in, the ability to demonstrate efficient use of the highway asset on a consistent basis will become increasingly important.

The UKRLG, at its recent meeting in Belfast, accepted the Roads Boards recommendations. However, that is not the end of the story. There are financial implications for this approach (on the future development of UKPMS, for example), which could mean getting the agreement of several sets of Ministers. In any case, these things take some time to get into alignment. Watch this space.

Edward Bunting
DfT

Footways and Cycle Track Risk assessment
Recent FCMG work has been focussing on risk assessment, as well as looking forward to how this might be used in whole life costing (see news). A risk assessment model for footways is being developed to estimate how the risk of accidents (pedestrian falls resulting from trips on defects) relates to surface type, pedestrian flows and maintenance management. A software tool containing this model is under development; this will enable the costs and benefits of different practices to be compared.

The model is based on the probability that a person walking over a given defect will have an accident and the probable numbers of defects on the network; the latter was estimated from analysis of survey data combined with typical



maintenance and inspection regimes giving information on the time period during which pedestrians were likely to be exposed to defects. The results are summarised in the chart above.

The probability of defects resulting in an accident was derived from analysis of local authority claims data and pedestrian flow information.

The predicted cost of accidents may be obtained by multiplying the number of accidents by the average cost of a walking accident. Accident costs have been estimated by examining claims data from local authorities, examining accident data bases compiled from interviewing A&E patients and combining the above with costs derived for home accidents. The average cost of a casualty following a footway fall was found to be £5,606 (2005 prices).

The work on risk assessment will be presented to the Roads Board at the June meeting.

Val Atkinson
TRL

The number of accidents on a section of the network per year (N_{accident}) is taken to be:

$$N_{\text{accident}} = \sum F \times L \times t \times N_{\text{defect}}(h) \times P_{\text{accident}}(h)$$

Where:

F = pedestrian flow on the section of the footway network (people per day)

L = length of section of the footway network (km)

t = time of pedestrian exposure to defect (days)

$N_{\text{defect}}(h)$ = number of defects of height h, developing on the network per km per year

$P_{\text{accident}}(h)$ = probability that one person will fall and injure themselves whilst walking past a defect of height h.

Useful information

UK Roads Board

Matthew Lugg (Chair), Leicestershire County Council, 0116 2657000, mlugg@leics.gov.uk

RPMG Chair

Gordon Prangnell (Chair), London Borough of Hammersmith and Fulham, 020 87533002, gordon.prangnell@lbhf.gov.uk

NRMCS

Roger Thompson, DfT, 020 79443092, roger.thompson@dft.gsi.gov.uk

Best Value

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TTS/SCANNER PMG Chair

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SCANNER Implementation Project Manager

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UKPMS Steering Group Chair

Chris Capps, Cambridgeshire County Council, 01223 717936, chris.capps@cambridgeshire.gov.uk

UKPMS Development

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FCMG

Andrew Murray (Chair), 028 70341315, andrew.murray@drdni.gov.uk

DIARY DATES

UK Traffic Management Board 7 June (London)
UK Bridges Board 14 June (Inverness)
UK Roads Board 21 June (London)
UK Lighting Board 30 June (Belfast)
UK Roads Liaison Group 12 July (London)

Acronyms explained

BVPI - Best Value Performance Indicator

CHART - Computerised Highway Assessment of Ratings and Treatments, the main survey used to assess surface condition for the current incarnation of the NRMCS.

CSS - County Surveyors Society

FCMG -Footway and Cycle tracks Management Group

HMDIF - Highways Maintenance Data Interchange Format, a standardised data format for use with UKPMS

LTP - Local Transport Plan

NRMCS - National Road Maintenance Condition Survey, the key national data source providing information about trends in road condition over time.

RPMG - Roads Performance Management Group

SCANNER - Surface Condition Assessment for the National Network of Roads. This name has replaced 'TTS' for surveys on English local roads from 2005-06.

TAG - Local Government Technical Advisors Group

TRACS - TRAffic speed Condition Survey

TRL - Transport Research Laboratory

TTS - TRACS-type survey, surveys of local roads based on the Highways Agency's TRACS system.

UKPMS - UK Pavement Management System

Key websites

Department for Transport main site - www.dft.gov.uk

Department for Transport statistics - www.dft.gov.uk/transtat

Dept for Communities and Local Government - www.communities.gov.uk this has replaced the Office for the Deputy Prime Minister - www.odpm.gov.uk

UKPMS - www.ukpms.com

UK Roads Liaison Group - www.ukroadsliaisongroup.org

IF YOU HAVE ANY FURTHER COMMENTS ABOUT THIS NEWSLETTER OR ISSUES RELATING TO ROAD CONDITION MONITORING, PLEASE E-MAIL THE ROADS BOARD SECRETARIAT AT chris.hudson@dft.gsi.gov.uk or andrew.oldland@dft.gsi.gov.uk