The Driving Standards Agency

Dear Sirs,

Highway Code Consultation 2006

I am writing on behalf of the UK Metric association in response to the invitation to give our views on the February 2006 draft version of the Highway Code.

UKMA

The UK Metric Association (UKMA) is an independent, non-party political, single issue organisation which advocates the full adoption of the international metric system ("Système International" - SI) for all official, trade, legal, contractual and other purposes in the United Kingdom as soon as practicable. UKMA is financed entirely by membership subscriptions and personal donations.

UKMA welcomes this opportunity to give its views on this important publication.

Summary

The main theme of our recommendations is that the DSA should use the UK's official system of weights and measures (commonly known as 'metric') as the sole units of measurement to be used in the Highway Code, with the temporary exception of miles per hour (until the UK's speed limits are converted to km/h).

Recommendations

1. With the exception of speeds, end the use of dual units of measurement by removing the bracketed imperial measurements throughout the Highway Code.

2. Add a bold easy to memorise "mph to km/h" and "km/h to mph" speed limit conversion chart to the Highway Code (see Appendix A).

Background

Government policy for over 40 years has been to promote the use of the metric system (SI) for an increasing range of purposes. Indeed, as a result of the Units of Measurement Regulations 1986 (SI 1986, No. 1082) as amended, the metric system is now the primary system of units of measurement permitted to be used for most official and legal purposes in the UK (subject to certain derogations contained in Directive 89/617/EEC (as amended) regarding the temporary retention of imperial units for speed and distance on road signage).

The reasons for the Government's policy of promoting the metric system as the primary (and eventually the only) system of weights and measures have been set out repeatedly over many years in official reports and White Papers such as those listed in Appendix B. We will not rehearse these reasons here except to reiterate that a single system of measurement units is essential to clear communication, children’s education, and safety on the roads. The continued and indefinite retention of two incompatible systems of measurement is contrary to the national interest. However, the objective of persuading the general public to adapt to the primary or exclusive use of the metric system has been hindered by the continuing use of obsolete units of measurement in the media and in some otherwise authoritative publications.

Observations

Contrary to what one might have expected, the use of obsolete imperial units, in successive editions of the Highway Code, has not steadily declined since metric values were first introduced.

Indeed, in the 1987 issue, with the exception of the stopping distances table, there was only one rule (119c) which had a distance described in dual units. Distances described in all other rules were expressed solely in metres (rules 119d, 120, 125, 131, 133, 168 and pages 48, 70).

UKMA is not aware of any good reason for the increased use of obsolete imperial units in successive editions of the Highway Code since the 1980s.

1. Recommended Changes to Existing Rules

The following is a rule by rule account of modifications that we would recommend be implemented on the February 2006 draft Highway Code. In each case we give the immediate reason for our recommendation. Following this, we also give a more general "Reasoned Justification".

Rule 88

Change

"You MUST be able to read a vehicle number plate, in good daylight, from a distance of 20.5 metres (approx 67 feet - about 5 car lengths) or a new style number plate from a distance of 20 metres (approx 66 feet)"

to

"You MUST be able to read a vehicle number plate, in good daylight, from a distance of 20 metres".

Reasons:

(a) The distinction between old and "new style" number plates is an unnecessary complication, as the difference of 0.5 m in the two reading distances is insignificant.

(b) The use of imprecise “car lengths” is inappropriate. A car’s length can range from less than 3 metres to more than 4 metres.

If nevertheless it is felt that the different distances for the two styles of number plate should still be included in the rule, then we would recommend the following.

Change

"You MUST be able to read a vehicle number plate, in good daylight, from a distance of 20.5 metres (approx 67 feet - about 5 car lengths) or a new style number plate from a distance of 20 metres (approx 66 feet)"

to

"You MUST be able to read an old style vehicle number plate, in good daylight, from a distance of 20.5 metres, or a new style number plate from 20 metres".

Rule 90

Change "35 microgrammes / 100 millilitres"
to "35 micrograms per 100 millilitres"
or "35µg / 100ml".

Change "80 milligrammes / 100 millilitres"
to "80 milligrams per 100 millilitres"
or "80mg / 100ml".

Reason : non-standard (archaic) spelling of "gram".

Reason : "per" is preferable to " / " if expressing the value in words.

Rule 94
Remove "(approx 162 feet)".
Reason : see "Reasoned Justification" below.
Remove "(approx 4ft 5ins)".
Reason : All commercially available tape measures manufactured in the last 40 years have a centimetre scale. Measuring in feet and inches is of course more difficult than centimetres because you have to divide the total number of inches by 12 to get the number of feet and then subtract 12 times this number from the original number to get the number of inches.
Reason : see "Reasoned Justification".

Rule 95
Remove "(approx 4 feet 5 inches)".
Reason : see Rule 94.

Rule 119
Change the 4 occurrences of "(95)" to "(96)" in the table.
Change "(95 km/h)" to "(96 km/h)" at the footnote of the table.
Reason : 60 mph is equivalent to 96 km/h (not 95 km/h).

Rule 120 - "Typical Stopping Distances" diagram.
Change "(95 km/h)" to "(96 km/h)" on the 60 mph stopping distance graphic.
Reason : 60 mph is equivalent to 96 km/h (not 95 km/h).
Change "average car length = 4 metres (13 feet)" to "average car length = 4 metres".
Reason : see "Reasoned Justification".
Remove "(40 feet) or 3 car lengths".
Remove "(75 feet) or 6 car lengths".
Remove "(118 feet) or 9 car lengths".
Remove "(175 feet) or 13 car lengths".
Remove "(240 feet) or 18 car lengths".
Remove "(315 feet) or 24 car lengths".
Reason : see "Reasoned Justification"
Comment : Old editions of the Highway Code (e.g. 1987 - back cover) showed cars drawn bumper to bumper inside the stopping distance "arrows" to give a GRAPHIC representation of the stopping distance in "car lengths". Presumably in an attempt to retain this information when the diagram was redesigned, we seem to have been left with "car length" becoming another NUMERICAL unit of distance. This has produced an undesirable end result, with stopping distances now being expressed in 3 different units.

Rule 216
Change "56 mph (90 km/h)" to "90 km/h (56 mph)".
Reason: This value is defined as 90 km/h. Therefore the km/h value should be the primary non-bracketed value.

Rule 220
Remove "(328 feet)".
Reason: see "Reasoned Justification".

Rule 237
Remove "(32 feet)".
Reason: see "Reasoned Justification".

Rule 244
Remove "(32 feet)".
Reason: see "Reasoned Justification".

Rule 267
Change "30 mph" to "30 mph (48 km/h)".
Change "50 mph" to "50 mph (80 km/h)".
Reason: Other occurrences of mph

Rule 268
Remove "(147 feet)".
Reason: see "Reasoned Justification".

Rule 286
Remove "(16 feet 6 inches)".
Reason: see "Reasoned Justification".

Page 112 - Metric conversions
Change "95.56" to "96.56".
Reason: "96.56" is the correct value.
Change: "104.60" to "104.61".
Reason: "104.61" is the correct value.

2. Recommended New Rule - A Speed Limit Conversion Chart

Under Directive 89/617/EEC the UK Government has an obligation to convert the UK's road signs from imperial to metric at a future date (that has yet to be fixed). This means that speed limit signs will at some point be changed from miles per hour (mph) to kilometres per hour (km/h).

We commend the addition of references to speeds in km/h to the new edition of the Highway Code. However, we feel that this is such an important issue that the addition of a new rule dealing with the subject should be added.

Appendix A shows a speed limit conversion chart that we have designed in a style suitable to fit across two pages of the current Highway Code.

Following the metrication of the Republic of Ireland's speed limits in 2005, the UK now has a land border with a country with speed limits in km/h. This chart would therefore be especially useful in the Northern Ireland edition of the Highway Code.

Experience in other countries that have converted from mph to km/h speed limits has shown that being able to remember a few key equivalent speeds is the best way of adapting to the new system. This is preferable to learning a conversion formula and then being expected to do mental arithmetic while driving.

A metric education at school is not necessary to learn these charts. Indeed these charts should prove useful to visitors to the UK who need to familiarise themselves with the UK's current speed limits in miles per hour.

We have included the following text for this proposed new rule to accompany the conversion chart:

"It is likely that speed limit signs will be changed from miles per hour (mph) to kilometres per hour (km/h) at some point in the future.

Try to remember the equivalent values of some key speeds.

You need to be familiar with speeds expressed in kilometres per hour (km/h) when driving outside the UK."

Reasoned Justification

The use of feet to express distances (other than vehicle width, length and height restrictions) is not permitted in “The Traffic Signs Regulations and General Directions 2002” (Statutory Instrument 2002 No. 3113). Moreover, the Department for Transport’s public safety campaign leaflet, "A Guide to Safer Motorway Driving", (http://www.thinkroadsafety.gov.uk/advice/pdf/motorwaydriving01.pdf) gives distances in metres without equivalent values in feet.

The metric system has been taught in schools for over 30 years (in some schools since the 1960s).

Everyone under the age of 45 has been taught using metric throughout their school lives.

Metric measurements have been part of everyday life, in sports, D.I.Y., shopping, etc., since the early 1970s and in some cases much earlier.

Virtually everyone that uses measurement in their professional lives uses the metric system exclusively and has done so since the early 1970s.
e.g. engineers, builders, surveyors, road designers, town planners, architects, map makers, the armed forces, lawyers, etc.

The majority of people who buy the Highway Code are learner drivers, of whom the vast majority are under 25 years of age, and may therefore be expected to be completely confident in the use of metric measurements. Indeed the use of feet to express distances will be completely alien to many people.

Metric measurements are used by 94% of the World's population.

Metric measurements are much simpler than imperial measurements and can be learned by anyone, young or old, very quickly.

In 2006, over 40 years after metrication began in this country, no one can seriously claim that they do not know what a metre is. For all practical purposes, for the rough estimation of distance, a metre can be treated as equivalent to a yard.

Values expressed in single units are clearer and more easily remembered.
e.g. Having to learn times tables with roman numeral equivalents added would be very confusing : "7 x 2 = 14" is much clearer than "7(VII) x 2(II) = 14(XIV)".

The use of single units of measurement is far clearer and easier to remember than measurements given with bracketed values in an incompatible system.

The use of dual systems of measurement does not encourage the adaptation to the exclusive use of metric measurements.

Thanks

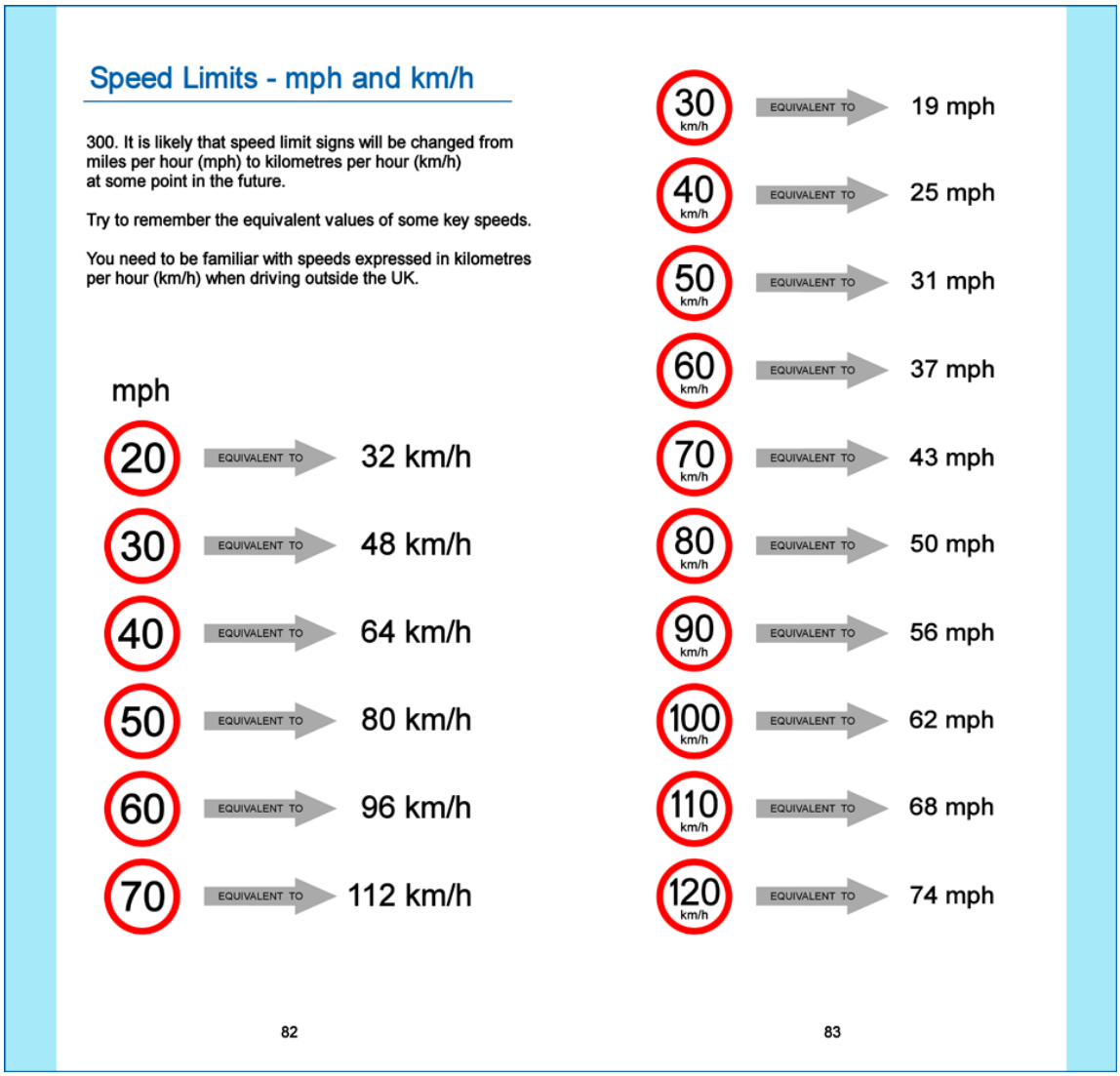
Finally, UKMA would like to thank the DSA for this opportunity to give our views on this important publication.

We hope that we may be of assistance in the compilation of future editions of the Highway Code during the ongoing process of full metrication of the UK's roads.

Yours faithfully

Secretary

Appendix A: km/h and mph conversion chart



Speed Limits - mph and km/h

300. It is likely that speed limit signs will be changed from miles per hour (mph) to kilometres per hour (km/h) at some point in the future.

Try to remember the equivalent values of some key speeds.

You need to be familiar with speeds expressed in kilometres per hour (km/h) when driving outside the UK.

mph		km/h
20	EQUIVALENT TO	32 km/h
30	EQUIVALENT TO	48 km/h
40	EQUIVALENT TO	64 km/h
50	EQUIVALENT TO	80 km/h
60	EQUIVALENT TO	96 km/h
70	EQUIVALENT TO	112 km/h

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km/h		mph
30	EQUIVALENT TO	19 mph
40	EQUIVALENT TO	25 mph
50	EQUIVALENT TO	31 mph
60	EQUIVALENT TO	37 mph
70	EQUIVALENT TO	43 mph
80	EQUIVALENT TO	50 mph
90	EQUIVALENT TO	56 mph
100	EQUIVALENT TO	62 mph
110	EQUIVALENT TO	68 mph
120	EQUIVALENT TO	74 mph

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Appendix B: Official reports and White Papers advocating the primary or exclusive use of the metric system in the UK

Select Committee appointed to consider the practicality of adopting a simple and uniform system of weights and measures (1862) *Report* Parliamentary Paper

Select Committee appointed to enquire into whether any and what changes in the present system of weights and measures should be adopted (1895) *Report* Parliamentary Paper

Committee on Weights and Measures Legislation (Hodgson Committee) (1951) *Report* Cmd 8219 HMSO

Committee on Consumer Protection (1962) *Final Report* Board of Trade

Standing Joint Committee on Metrication (1968) *Change to the metric system in the United Kingdom* HMSO

Department of Trade and Industry (DTI) (1972) *Metrication* Cmnd 4880 HMSO

Department of Prices and Consumer Protection (1977) *Metrication* HMSO

Department of Trade and Industry (DTI) (1995) *Guidance Note on the use of Metric Units of Measurement by the Public Sector* DTI

Department of Trade and Industry (DTI) (1999) *The adoption of the International System of Units as the primary system of measurement in the United Kingdom* DTI