



# UKMA news

The newsletter of the UK Metric Association

Campaigning for a single rational system of measurement

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## In this issue:

Back to school	1
Annual General Meeting	1
Future status and constitution of UKMA	2
UKMA, TSI & "Metrical Miscellanea and Muddle"	5
Sign costs project	5
From USMA newsletter 'Metric Today'	6
Southwark goes back to the 1980s	7
New Labour leader announced	9
UK Prominent Peaks tables and maps updated	10
Odd bits and pieces from the Editor	10

## Back to school



**Picture from:**

<http://www.whsmith.co.uk/CatalogAndSearch/ProductDetail.aspx?productID=90012020>

As the picture shows, we still send our children off to school with inches on their rulers.

Who decides that this is the best practice for our children's education? WH Smith, whose picture appears here admittedly also sell metric only measuring instruments, but why any with inches on at all?

At least, the rulers are the 'right way up' with metric graduations on the 'top'

Also, their dictionaries show kph as the abbreviation for kilometres per hour. Again, who decides on this practice? What is the role of standards bodies in ensuring correct usage?

## Annual General Meeting

### ***Annual conference signals possible change of strategy.***

UKMA needed to review its strategy and perhaps consider a change in its role and constitution – this was the central message of UKMA's Chairman, Robin Paice, at the AGM and Annual Conference held at King's College, London, on 3 July 2010.

Following the formal AGM, which approved the annual report and accounts and the re-election of the Officers and Committee members, the Annual Conference discussed the disappointing progress in converting the UK to "a single, rational system of measurement". Secretary Derek Pollard described how UKMA was at a huge disadvantage in the propaganda battle since we rely on logic and evidence, whereas our opponents are able to use myths, emotion and ignorance, especially in the media, to prevent our message from getting through.

In his review of the year, Robin Paice referred to the (now enacted) amendment to the Units of Measurement Regulations, the deregulation of package sizes, the intransigence of the Government over "specified quantities" for draught beer and cider, and the consultation on weights and Measures reform and review of consumer protection. In the session, "Future status and constitution of UKMA", the Chairman outlined the option of seeking charitable status and reconstituting the Association as a form of company (see separate article).

Martin Ward represents UKMA on the "Sounding Board" of the Department for Transport's "Traffic Signs Policy Review", and he described the group's work, including the proposal to mandate dual metric/imperial units on height and width restriction signs (albeit this proposal now appears to be in doubt as a result of the change of government). This was followed by discussion of the sign costs project (see separate article).

Bill Lynch presented his proposals for a new "style guide", and other topics covered included UKMA's various websites and other means of communication, such as social networking sites and Youtube.

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## Future ;tatus; and con;titution of UKMA

*(Article based on Powerpoint slides by Robin Paice)*

### **Introduction**

After nine years since its inaugural meeting in 2001, UKMA has not succeeded in its primary objective of persuading politicians, the media and the general public to adopt the metric system as their primary and default system of measurement. Indeed, uninformed and irrational opposition has become entrenched and it is clear that, short of a damascene conversion by senior politicians prepared to risk unpopularity by pushing it through, significant progress is unlikely in the near future.

UKMA must therefore recognise that it is for the long haul, and that it may take many years of patient education and dissemination of accurate information to change the public perception of the metric system as difficult, foreign, unpatriotic and unnecessary. On this argument, UKMA should place more emphasis on its information-giving and educational role, rather than on political campaigning, and this could lead to a review of its status and constitution, opening up the possibility of seeking charitable status.

### **Current position**

UKMA's current status is that of an unincorporated association. This is the simplest and cheapest option since there are no registration requirements, fees, external auditing or regulation. However, it has no "legal personality" – that is,

- It cannot own property, employ anyone, or act as an organisation
- It can't be liable or be sued
- Any action has to be as individuals – hence all members are jointly and severally liable (e.g. for debts)

Furthermore, UKMA is not a charitable organisation and thus does not benefit from any "tax breaks". However, it is free to campaign without restriction.

What are the alternatives to this status?

### **Company limited by guarantee**

- Advantages
  - has legal personality
  - some protection for ordinary members (e.g. against liability for debts)
- Disadvantages
  - Articles and Memorandum need to be changed to conform to legal requirements
  - Registration fee (annual) with Companies House
  - Must submit annual professionally audited accounts

### **Charitable status**

- Benefits
  - Tax advantages (e.g. gift aid, bequests)
  - Better status
  - Attract donations
  - More credibility with media, politicians, etc
- Disadvantages
  - Objects must be "wholly charitable for public benefit" – does NOT rule out campaigning (see below)
  - Possible registration with and supervision by Charities Commission (but depends on income)

### **What does "wholly charitable for public benefit" mean in practice?**

The requirements of the Charities Commission are set out in this extract from the Charities Commission document overleaf:

## C1. What is 'public benefit'?

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'Public benefit' is the legal requirement that every organisation set up for one or more charitable aims must be able to demonstrate that its aims are for the public benefit if it is to be recognised, and registered, as a charity in England and Wales.

This is known as 'the public benefit requirement'.

## C2. What are charitable purposes?

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'Charitable purposes' are those that fall within the descriptions of charitable purposes set out in the Charities Act and that are for the public benefit.

New charitable purposes may be recognised in the future, by the Charity Commission or the Charity Tribunal or the courts, as charity law continues to develop.

It is a requirement that a charity has aims that fall within, or are analogous to, these descriptions of charitable purposes.

Further guidance on charitable purposes can be found in our *Commentary on the Descriptions of Charitable Purposes in the Charities Act* on our website.

The Charities Act sets out the following descriptions of charitable purposes:

- a) the prevention or relief of poverty;
- b) the advancement of education;
- c) the advancement of religion;
- d) the advancement of health or the saving of lives;
- e) the advancement of citizenship or community development;
- f) the advancement of the arts, culture, heritage or science;
- g) the advancement of amateur sport;
- h) the advancement of human rights, conflict resolution or reconciliation or the promotion of religious or racial harmony or equality and diversity;
- i) the advancement of environmental protection or improvement;
- j) the relief of those in need, by reason of youth, age, ill-health, disability, financial hardship or other disadvantage;
- k) the advancement of animal welfare;
- l) the promotion of the efficiency of the armed forces of the Crown, or of the efficiency of the police, fire and rescue services or ambulance services;
- m) other purposes currently recognised as charitable and any new charitable purposes which are similar to another charitable purpose.

## Guidance on "public benefit"

The Commission also offers guidance on what constitutes "public benefit"

- Must be identifiable benefit(s), related to aims (balanced against any detriment)
- Must be to the public or a section of the public (i.e. not to members)
- Public opinion does not decide (but can be taken into account)

This is amplified in the extract overleaf:



### D8. When considering what is for the public benefit, to what extent can the Charity Commission take public opinion into account?

Public opinion cannot decide what is or is not charitable or for the public benefit.

Charitable status is not decided on the basis of popularity. Public opinion can be deeply divided on an issue and public attitudes about particular issues can change over time. Charities are often innovative and pioneering. They may be concerned with matters the merits of which have yet to be proven, or which the general public has yet to appreciate or recognise as having value. Charities are sometimes engaged in controversial matters about which there may be divided and strongly-held public views. Or they may work in areas, or use particular methods, that are not popular but are nevertheless valuable.

Sometimes, different charities can legitimately hold opposing views about a particular issue, and yet both can still benefit the public.

For example, charities concerned with the promotion of animal welfare and charities concerned with the promotion of health or relief of sickness may put forward opposing arguments regarding the use of animal experimentation in medical research. Both may have aims that are charitable for the public benefit, but in different ways.

Therefore, in order to decide whether or not a particular charitable purpose or a particular charity's aims are for the public benefit, it is for the Charity Commission, or the Charity Tribunal or the courts, to be satisfied that it is for the public benefit, whether or not the public, or indeed other charities, agree that is the case.

However, where public benefit is not obvious, the Charity Commission, and the Charity Tribunal and the courts, can have regard to public opinion in so far as it is appropriate. In such cases, the general approach taken by the courts has been to look for evidence of public benefit.

For example, public opinion might be relevant when considering whether there is a public benefit in the general appreciation of a beautiful landscape or building.

For certain kinds of benefit, this may include taking into account a general consensus of objective and informed opinion, although that opinion alone would not decide the matter.

Decisions about public benefit reflect ordinary life, taking into account generally accepted views on the nature and usefulness of what an organisation aims to achieve and its public benefit. Public attitudes and opinion can be a useful factor to be taken into account in helping us to understand current social and economic conditions. This, in turn, can enable us to shape the legal understanding of what is charitable in a way that is relevant for today's society.

### UKMA's current objects

Quote from our constitution: "The object of the Association is to promote the full adoption of the international metric system (SI) in the United Kingdom as soon as practicable."

Possible revised objects

(These are suggestions for discussion)

- For the benefit of the public to advance the education and understanding of the public of the International Systems of Units (SI)
- For the benefit of the public to advance consumer protection by promoting consistent and transparent pricing, labelling, description and advertising of goods and services
- For the benefit of the public to improve public safety by promoting the use of road signage that complies with the best international standards, using internationally understood units and symbols
- For the benefit of the public to improve communication between the scientific community and the general public, and hence advance public understanding of science, by promoting the general use of the International System of Units as the default system of weights and measures in the UK

(NB – objects such as "to improve the economy" would probably not be deemed to be charitable).

UKMA might possibly need to moderate the tone of some of its publications but not change fundamentally.

Charitable incorporated organisations (CIOs)

- New animal under Charities Act 2006
- No need for double registration
- No minimum income requirement
- No fee for registration
- Audited accounts and annual returns must be submitted (may not need to be professional audit if below specified income)
- BUT – not available until "early 2011"

# UKMA new; - the new;letter of the UK Metric A;ssociation

## Next step;

- More research into full implications of changing status (if satisfied, and when CIO registration is available)
- Amend UKMA's objects at General Meeting
- Apply for charitable status
- Seek registration as "Charitable Incorporated Organisation" (CIO)

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## UKMA, TSI & "Metrical Mi;cellanea and Muddle"

The Trading Standards Institute (TSI) has recently published a historical review of measurement compiled by Robert Grice. The "muddle" in the title refers generally to weights and measures legislation through the centuries and, of course, to the leisurely progress of the metric system within the UK. The appendices include the historical perspective by Jim Humble, the last Director of the Metrication Board, and the article by our Patron, Lord Howe, published in 2009 in TSI Today. The book has 130 pages and an extensive bibliography. In his foreword, Mr Grice says, "It is my hope that this book will stimulate interest in current metrological activities and in the quaint, fascinating history of weights and measures."

Thanks to a bequest from the late Chris Howell, always a good friend of UKMA, the TSI was able to provide a number of copies gratis for UKMA members attending the AGM. A few of these remain, and the Committee has decided to offer them to other members at a cost of £2.00 for post and packing, maximum one copy per member. If you would like a copy, please send me a cheque for £2.00 made out to UKMA. Alternatively, for those who prefer electronic payment and have a Paypal account, please e-mail to inform me then use the 'Donate' button on the home page of the web site, [www.ukma.org.uk](http://www.ukma.org.uk), enter an amount of £2.00 and write "MM&M" in the space for a message. Allow four days for delivery.

Please contact Derek Pollard, Secretary UKMA

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## Sign cost; project

### *(Article based on Powerpoint slide; by Robin Paice)*

Most of the costs of UK metrication have already been borne (mainly by the private sector and individuals), and the only remaining significant cost is that of converting road signs to display metric units. In reality, in the context of public expenditure generally, this cost is utterly trivial. Yet the Department for Transport (DfT), jealous as it is of its budgets for motorways, airports and high speed rail lines, has largely succeeded in persuading politicians and the media that it is unaffordable. Unless UKMA can demonstrate that the DfT's cost estimate is a gross exaggeration, it will continue to be difficult to persuade even people who are otherwise sympathetic that converting our road signs is worth doing.

## UKMA's cost estimate, February 2006

This was based on data from the Irish experience and on updating DfT's previous estimates. The result was:

- Speed limit signs
  - 200 000 @ £100/sign = £20 million
- Distance signs
  - 400 000 @ £150/sign = £60 million
- Total £80 million (central projection within a range of £41 – 160 million)

## DfT estimate (November 2005, released February 2006)

Firstly, the cost of works (i.e. materials and labour) were estimated as follows:

	No; (000;)	Supply & fit (£ millions;)	Traffic management	Total	Average (£)
Speed limit sign;	250	88	34	122	488
Directional sign;	78	32	33	65	833
Other;	102	20	35	55	539
Total (England)	430	140	102	241	560
UK total	500	193	119	312	560

## UKMA news - the newsletter of the UK Metric Association

Note that the cost of works is inflated by "traffic management" - although the vast majority of amendments could be done without significantly obstructing the highway and hence without any need for traffic management.

The total of £312 million was then adjusted as follows:

	(£ millions)
<b>Cost of works</b>	312
<b>Supervision, preparation and design</b>	78
<b>Optimism bias (45-65%)</b>	175 - 254
<b>Preparation</b>	100
<b>Publicity</b>	10 - 15
<b>Project management</b>	10
<b>Grand total</b>	680 - 760

(For source, see <http://www.dft.gov.uk/pgr/roads/tss/gpg/estimatingcostconversion> and <http://www.dft.gov.uk/adobepdf/165240/183423/estimatingcostofconversion>)

Most of these "adjustments" are in fact spurious. The work is of a routine, repetitive nature which would be done on a "schedule of rates" type of contract, with minimal design or "project management" required.

The "optimism bias" factor is appropriate for building the Channel Tunnel or an aircraft carrier (with their huge cost overruns) but quite inappropriate for amending road signs.

The absurdity of the DfT's figures can be demonstrated by comparing them with the Irish Department of Transport's outturn figure of €12 million for a similar project (albeit spread over more than a decade).

### Need for an independent estimate

Attempts to challenge the DfT's figures by involving the National Audit Office have been unsuccessful (the NAO simply accepted the DfT's assurances without carrying out their own investigation). The media and politicians (especially if they are hostile to metrication) will believe the DfT rather than UKMA - so an independent estimate by a recognised professional is essential.

UKMA is therefore investigating the possibility of employing a firm of quantity surveyors to carry out a proper cost estimate.

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## From USMA newsletter 'Metric Today'

### *Proposed Rules to Allow Metric-Only Labels*

With a few exceptions, labels on packages subject to the Fair Packaging and Labeling Act (FPLA) must include both metric and non-metric units in statements of net quantity. An amendment has been drafted by NIST that would, if it becomes law, allow metric-only labels as well as dual unit labels, and NIST has issued two publications on the topic.

Voluntary Metric Labeling is a 24-page document that explains the history of the FPLA and the reasons for proposing the amendment.

Marketplace Assessment—Metric Labeling on Packages in Retail Stores is a 26-page document containing the results of a survey of product labels conducted in 2008. That survey found that many items already use metric labels (omitting inch/pound units). Although many of those labels are technically illegal at the present time, the point is that metric labels have already been accepted in the marketplace:

"The long standing convention that the marketplace will determine when metric labeling is appropriate is becoming a reality. Some U.S. manufacturers are choosing to use metric labeling for their products, which is in conflict with the current FPLA. Metric labeling has emerged into the retail distribution supply chain without causing disruption to U.S. consumers and retailers. Consumers purchase packages that are labeled exclusively with metric units every day. Impacts appear to be minimal as metric labeled products are absorbed into normal retail functions. Metric packages are displayed alongside other dual labeled products and do not appear to interfere with normal retail operations, such as machinery, packaging and shipping containers, or shelving."

USMA's FPLA page at [www.metric.org/laws/fpla.html](http://www.metric.org/laws/fpla.html) includes links to NIST's 23 June 2010 announcement of the publications and the publications themselves.

## UKMA new§ - the new§letter of the UK Metric A§sociation

***Here is a response to a relevant Metric View§ blog item 'Measuring, trading and manufacturing':***

Ezra Steinberg says:

2010-07-21 at 05:04

The good news in the USA is that many products use a "rational" metric size followed by the USC (US Customary) units in parentheses afterward. This includes some very large companies like Procter and Gamble.

Once the FPLA (Fair Packaging and Labeling Act) is amended to allow for voluntary metric-only labeling, I predict many manufacturers will drop USC and use rational metric sizes.

The trick is to get the amendment to the FPLA past Congress. That will not be an easy task, particularly with the current economic climate (which falsely convinces Congress not to change laws for fear of burdening companies) and the irrational opposition of some industry groups like the FMI (Food Marketing Institute).

***Also from the USMA website (but with UK English spelling!):***

- The short forms for SI units (such as mm for millimetre) are symbols, not abbreviations.
- SI symbols never end with a period unless they are the last word in a sentence.
  - RIGHT: 20 mm, 10 kg
  - WRONG: 20 mm., 10 kg.
- SI symbols should be preceded by digits and a space must separate the digits from the symbol.
  - RIGHT: It was 300 mm wide. The millimetre width was given.
  - WRONG: It was 300mm wide. The mm width was given.
- Symbols always are written in the singular form (even when more than one is meant).
  - RIGHT: 1 mm, 500 mm, 1 kg, 36 kg
  - WRONG: 500 mms, 36 kgs
  - BUT: It is correct to pluralize written-out metric unit names: 25 kilograms, 250 millilitres
- The symbol for a compound unit that is a quotient of two units is indicated by a solidus or by a negative exponent.
  - RIGHT: km/h or km·h<sup>-1</sup> (for kilometres per hour)
  - WRONG: kmph or kph (do not use p as a symbol for "per".)
  - BUT: It is correct to say or write "kilometres per hour".
- The meaning of an SI symbol can be changed if you substitute a capital letter for a lower case letter.
  - RIGHT: mm (for millimetre, which means 1/1000 of a meter)
  - WRONG: MM or Mm (M is the prefix for mega, which means one million; a megametre is a million metres)

How about a version of this quick and easy reference guide published in diaries with the usual men's and women's shoe size conversion charts? – Ed

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## Southwark goes back to the 1980§

The London Borough of Southwark appears to relish its role as the setting for the BBC's 1980s retro series *Ashes to Ashes*, which was filmed on location in the borough. Just a few hundred metres from filming locations, which were dressed to take off a quarter of a century and appear as they were in the 1980s, Southwark has been busy spending public money removing universally understood metric road signs and replacing them with imperial ones that fewer drivers will understand.

The width restriction at Cope Street in Surrey Quays was signed in both metric and imperial units in the 1990s, with these signs still visible today, albeit they have been covered up by rather unattractive paint since road works closed the turning in 2008.



*1990s vintage Cope Street sign (as painted over in 2010) with metric units alongside imperial*



## **UKMA new; - the new;letter of the UK Metric A;sociation**

At the conclusion of the road works in 2009, new signs were erected at the entry to Cope Street, showing a slightly reduced width restriction of 2.0 metres.



*Cope Street signs in 2009 with metric units*

Sadly the borough recently decided that it no longer wanted to appear as a modern 21st century borough, and spent public money removing these signs and replacing them with signs showing the width restriction in feet and inches only.



*Cope Street signs in 2010 showing only imperial units*

The Department for Transport's current Traffic Signs Manual recommends that such signs should show both metric and imperial units (see paragraph 5.36), and this recommendation is strongly supported by Network Rail and the road haulage industry. Indeed dual signing has been common practice amongst more enlightened highway authorities since the 1990s, and enables drivers of HGVs to avoid narrow or unsuitable streets and low bridges.

In 2008, the London Borough of Hammersmith and Fulham had to find £100,000 to repair Hurlingham Road after a French HGV crashed into a similar width restriction which wasn't signed in metres.

UKMA Chairman Robin Paice said, "It is extraordinary that a public body has spent money to go backwards, and remove vital information from signs which have been comprehensible to all drivers for 20 years and go back to outdated imperial units. They have also failed to repair vandalised road signs such as the height restriction warning sign in South Bermondsey, making it more likely that a foreign vehicle will strike the bridge and cause chaos on the main railway line into London Bridge station.

I would call on the borough, and all other highway authorities, to ensure that they follow the Department for Transport's advice, and include metres on all height and width restriction signs to reduce the risk of accidents."





*Vandalised warning sign in South Bermondsey approaching the main railway line into London Bridge*

Council tax payers of Southwark would be wise to ask why the Council is wilfully exposing them to these potential costs by not only failing to follow the official DfT advice to use metres, but actually reverting to obsolete imperial measures – thereby increasing the likelihood of a costly accident.

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### New Labour leader announced

The following question was sent by email to each candidate (or to their campaign team) ahead of the election:

“What is your policy on completing the changeover to the metric system, including road signs?”

This is the reply from the newly elected leader Ed Miliband (27 August ):



“I support the use of metric measurements as has been the case since conversion to metric in 1965. In fact, when in government Labour negotiated in the EU to allow continued indefinite use of dual measurement indicators. In practice, this means that most goods must be sold in metric units (as is now the case) but old style units are permitted to be displayed as well. I think there could be problems in exclusive use of one or other style of measurement – for example, many British goods are exported to multiple countries which use different measurement units. Switching to exclusive use of the metric system could raise issues about the viability of those exports, which would need to be addressed.”

Some comments to the Metric Views blog:

David Brown says:

2010-09-03 at 16:40

They don't have a clue do they? David Milliband thinks that miles are well understood does he? He clearly doesn't get out much beyond the shores of Little England! His brother wonders about the viability of exports. Why does he think we started the metrication programme in the first place?!

It's quite obvious that this issue is not high on their agenda. UKMA needs to find ways, not only to argue the case (which they do very well), but also to get the issue onto the agenda.

philh says:

2010-09-04 at 12:58

The ignorance displayed in these matters by the Miliband brothers is typical of the general public. Although they are prominent politicians there is no reason why they should be particularly well informed. It doesn't automatically come with the job and they don't get where they are on the strength of it.

To make progress we have to educate people – all the way up to the top!

### UK Prominent Peak; table; and map; updated

A new release of the UK Prominent Peaks tables and maps is now available. This follows the announcement of survey results for Glyder Fawr in Snowdonia which demonstrate that it is more than one thousand metres high.



*Photo courtesy of Myrddyn Phillips, G & J Surveys*

Earlier this week G & J Surveys announced that Glyder Fawr's height was 1000.8 metres. This was the result of a new survey accurate to  $\pm 5$  cm. The photo shows the summit pinnacle which is a mere 2 mm higher than the rock on the right. The Snowdon/Yr Wddyfa range is behind Glyder Fawr.

In the UK Prominent Peaks classification, Glyder Fawr joins the H1000 height category. It therefore becomes the 134th peak in the Prominent Thousands challenge. The UK Prominent Peaks website has been updated with the new survey results and also the results of earlier surveys on Tryfan and Kinder Scout.

The latest versions of the UK Prominent Peaks downloads are available from <http://peaks.ukma.org.uk/Downloads.aspx>.



### Odd bit; and piece; from the Editor

This edition's collection of packaging delights includes this one – Tesco Strawberry delight to be precise. Is the weight really this accurate?



There's likely to be 50 g in the packet anyway due to production tolerance so why not mark it as such?

## UKMA new; - the new;letter of the UK Metric Association

Here are some better examples:



How about this though?



In this example, we have 260gsm for the English language, 260g/m<sup>2</sup> for the next three and 260gmq for the last (can anyone identify that language?).

This is a mockery of the fact that the symbols are international. Who has told the designers of this packaging that this is how the symbols should be represented?

How can we respectfully but persuasively convince them otherwise?