



UKMA news

The newsletter of the UK Metric Association

Campaigning for a single rational system of measurement

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decision that with limited resources we will not comment, even informally, on individual draft constitutions until the CIO is available for charities to use. When the CIO is available applications will need to be made using our online application form, and we will also be producing amendable versions of the model constitutions which can be completed online.”

So we have no alternative but to wait for the Commission, the Office for Civil Society and Parliament to get their act together (literally). The only consolation is that the Regulations are expected to be uncontroversial and may not even need to be debated.

In the meantime the Committee have decided to circulate the current draft constitution for members' comments.

Charitable status delayed



Charity Commission logo

The Regulations for establishing Charitable Incorporated Organisations (CIOs) under the Charities Act 2006 have been delayed yet again. Moreover, the Charities Commission has been unhelpful over adapting UKMA's constitution to the Commission's requirements.

Although the enabling Act was passed in 2006 with all party support, it was not until spring 2010 that it was intended to lay the detailed rules before Parliament. However, the measure ran out of Parliamentary time (because of the General Election), and the next target date was spring 2011. Then October 2011. Now the target is "the New Year" (presumably 2012).

In view of the delay, and to avoid the need for repeated "inaugural meetings" to approve the new constitution, UKMA's Chairman sent the Commission a copy of a possible draft constitution requesting that they make informal comments (without commitment) pending a formal submission. However, the Commission's Policy Officer replied that: "[We] have taken the

Style Guide reference card to be finalised soon

Members who attended the Annual Conference in July will remember the presentation and discussion on the proposed style guide reference card. This was intended to be a user-friendly (specifically journalist-friendly) laminated card that gives basic advice on writing metric, including mistakes to avoid and a brief summary of how the system works. The idea was that it would be durable and would be retained for reference by writers.

The idea was well received, but the main criticism was that the format of the card (A3 folded once) did not work very well since the laminated card resisted folding and would not lie flat – giving a slightly amateurish result. An alternative proposal was that, with some re-arrangement and changes to the font size and spacing, most of the content could probably be fitted on to a single A4 sheet.

This revised proposal is currently being developed, and the authors are hoping to meet shortly to bring it to a conclusion. If this is successful, the result will be circulated to members for final comments before it is published

What a cheek!

Here is a copy of a letter sent by UKMA member Ronnie Cohen to the Evening Standard. Take a close look at Ronnie's letter and the version printed in the paper...

"Subject: Review of Speed Limits

Date: Mon, 3 Oct 2011 08:18:39 +0100

Dear Sir

While the Department for Transport reviews the speed limits on British roads at both ends of the scale, this is a golden opportunity to consider the possibility of introducing speed limits in kilometres per hour.

There are several benefits of using metric speed limits. Speed limits expressed in multiples of 10 km/h (6 mph) rather than 10 mph would provide more options for speed limits so that they are more sensitive to local road conditions. They would be aligned with roads in the rest of Europe and with the speed limiters installed in large vehicles. Problems of foreign drivers' lack of understanding of imperial speed limits would be eliminated. British drivers would gain the opportunity to become familiar with the metric speed limits used throughout Europe. The benefits for international travel across countries would be huge.

Ronnie Cohen"

Here is the paper's version:

(other reader's letters grayed-out)

The screenshot shows a newspaper page with a text message advertisement on the left and a letter snippet on the right. The advertisement includes a mobile phone icon, the text "Get it off your TXT", and instructions to text "ES TEXTS" to "65400". The letter snippet on the right is partially obscured by a grayed-out area and shows the text: "expressed in multiples of 10kph (6mph) provide more gradations so are more sensitive to local road conditions; they would be aligned with the speed limiters in large vehicles and would eliminate foreign drivers' lack of understanding of imperial speed limits. Ronnie Cohen".

Why did the Evening Standard change Ronnie's km/h to kph? Why also did they edit the text from a perfectly logical "Problems of foreign drivers' lack of understanding of imperial speed limits would be eliminated" to "and would eliminate foreign drivers' lack of understanding ..." which is nonsense! It is the problem that needs to be eliminated!

Spectacular conversion error

Ronnie Cohen has been busy again and has sent in this report:

"Outside the Beaufort Court building in South Quay, London where I work, I never thought anything of this bar with its sign. The sign claims to show the imperial equivalent of 1.9 metres. Whoever put up the sign got it spectacularly wrong.

As I know that I am 1.83 metres tall, I thought that the sign cannot be right as the top bar is far above my head. The sign can most clearly be seen in [Image1.jpg](#) (attached). I took out my mobile phone then calculated the the metric equivalent of 8 feet 3 inches and it adds up to 2.5146 metres (let's say over two and a half metres), much more than the 1.9 metres it says on the sign.

I have attached a few more images of the same bar so that you can choose the images that you want to use in a newsletter article.

This proves that in a dual measurement system such the one we have in the UK, people will occasionally make mistakes in conversions and this is just one example."

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Here are a couple of pictures of the sign:



Trader selling fruit by the bowl is fined

From the London Borough of Newham's website:

February 27, 2009

An East Ham trader has had to fork out a total of £635 for selling fruit by the bowl without displaying the correct prices or weights.

Newham Council prosecuted Saleem Baiyat, owner of Fresh Fruit & Veg at 447A High Street North. Baiyat pleaded guilty to breaching the Weights and Measures Act 1985 and the Price Marking Order 2004.

He was fined £135 and ordered to pay costs of £500 when he appeared at Stratford Magistrates' Court on February 20.

Trading standards officers had previously visited the shop and advised Baiyat of the correct way of displaying the goods, in line with the law. However, when the officers returned, they found he had ignored their advice.

Councillor Andrew Baikie, executive member for housing and public protection, said: "Baiyat had clearly ignored the council's trading standards officers and we had to prosecute him.

"Consumers have a legal right to be provided with clear information about the quantity of the produce they are buying and at what price.

"We are seeing an increasing number of traders in the borough displaying their fruit and vegetables by the bowl and they need to know the law. If they do not display clear labelling showing the price or weight of goods, then they are not complying with legislation.

"We will not hesitate in taking legal action against anyone who deliberately flouts the law."

The Weights and Measures Act 1985 and the Price Marking Order 2004 require traders to clearly label and display the price and weight of goods being offered for sale. If traders breach the legislation, they face prosecution and maximum fines of up to £5,000.

Businesses can seek advice by contacting Newham Council's trading standards service on 020 8430 2000.

At last, a successful prosecution... but did the 'Red Tops' notice and make a fuss about this?

What a UK metric road signs changeover could look like

It looks as though the UKMA is not alone in campaigning for road signs to be metricated!

From a blog at <http://globonsomeday.blogspot.com/2011/09/what-uk-metric-road-signs-changeover.html#more>

We have explained the need to go metric, to have metric road signs, and have given many examples of what metric road signs would look like. I also believe metrication is a good time to have a look at signage improvements including clutter removal. I do not plan on going into too much detail about the changeover, as metrication and road signs have been rather overdone (on this blog). But I do intend on looking at the key points.

Estimates of the cost

The UKMA estimated in its Metric Signs Ahead report back in 2006 that the metric changeover would have a likely cost of £80 million, whereas the DfT who were looking for excuses not to change and hoping to stop the debate, made an overinflated estimate of £760 million. To put both into perspective, both are much less than the roads budget of £17 billion (this despite an estimate revenue of £43 billion in Road Taxes every year - which is a separate issue entirely).

Even though it is not intended to be prescriptive, I recommend that the UKMA's changeover plan, and the UKMA's suggestions in the Traffic Signs 2.0 booklet, would be good places for the DfT (who would be responsible for the changeover, to start). I also believe the signage suggestions I have included in my articles are also good places to start.

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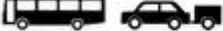
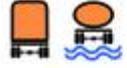
Speed limits

The speed limits would need to be reviewed, to see whether they are appropriate for the area. There would be more choices available for those making decisions on speed limits, but they should take into account whatever the conditions are - so near an accident blackspot, where there are a lot of pedestrians, or (especially) near a school, it would make sense to reduce the speed limit, if necessary even lower than the converted speed limit.

But by default, the posted speed limit changes are expected to be converted as follows:

Speed limit before (imperial)	Speed limit before (equivalent metric)	Speed limit after (metric)
5 mph	8 km/h	5 km/h
10 mph	16 km/h	10 km/h
15 mph	24 km/h	20 km/h
20 mph	32 km/h	30 km/h
25 mph	40 km/h	40 km/h
30 mph	48 km/h	50 km/h
40 mph	64 km/h	60 km/h or 70 km/h
50 mph	80 km/h	80 km/h
60 mph	96 km/h	90 km/h or 100 km/h
70 mph	112 km/h	110 km/h or 120 km/h

The author has included a diagram showing suggested speed limits for vehicle types in different road situations:

Vehicle classes	Road type				
					
					
					
					
					
					

Default speed limit per vehicle class, this is an example. Note that there are currently no roads classed as Expressways (Kraftfahrstraße / Voies rapides) in the UK,

For all the good work put forward on this issue however, there appears to be no way that the DfT is ever going to budge on this issue as an extract from their response to a letter from UKMA member Roland Baker shows:

"The outcome of that consultation was an EU Directive (2009/3/EC), published in the Official Journal in May 2009, which removed any obligation on the UK Government to set a date to end the use of the mile as the primary unit of measurement for road traffic signs.

Our position is that we do not consider diverting funding from priority areas to the metrication of road traffic signs is justified, and we do not propose to revisit the cost estimate."

So there - the Government avoided being told what to do by the EU and steadfastly refuses to take any initiative on behalf of the UK. Unless the change can be 'justified', nothing will ever be done.

The Use and Abuse of Fluid Ounces

From Ronnie Cohen:

Here is another story about the extraordinary way that fluid ounces are used as supplementary indications (or should I say abused?). Take a look at the attached photos. These are all products on sale in the UK.

In the UK Unit of Measurement Regulations, a fluid ounce is officially defined as 28.4130625 millilitres. However, I saw some products at TK Maxx and Asda using the US fluid ounce of 29.57 ml, which is not legally recognised in the UK. Are these US markings legal?

Would anyone get away with selling milk by using US pints on product labels? Who would get away with describing a 4-pint container as four and three quarter pints (using a US liquid pint of 473 ml)? Would publicans get away with serving US pints? US volume measures are not legally recognised in the UK.

- The assorted aftershaves show markings with "75 ml, 2.5 fl. oz" and "30 ml, 1 fl. oz". This uses a conversion factor of 30 ml per fl. oz. If we account for rounding, these are correct in terms of the US definition. By the official UK definition, these figures should be 2.64 fl. oz (or 2.7 fl. oz to 1 decimal place) and 1.056 fl. oz (or 1.1 fl. oz to 1 decimal place) respectively.
- The deodorant can shows a marking of "200 ml, 6.6 fl. oz". This uses a conversion factor of 30.3 ml per fl. oz. For US fl. oz, the figure should be 6.76 fl. oz (or 6.8 fl. oz). For UK fl. oz, the figure should be 7.04 fl. oz (or 7.0 fl. oz).
- The Elmlea cream carton gives the correct marking and shows "284 ml, 10 fl. oz". This uses the UK fl. oz. This is no use for the US market, which requires labelling in metric and US customary units, but legally correct in the UK.
- The Heathcote & Ivory product is made in the UK (see front and back images). Despite that, it uses the US fl. oz on the label, showing "300 ml, 12.16 fl. oz". The fl. oz figure is slightly wrong and should be 12.17 fl. oz.
- The KTC product shows "165 ml, 5.8 fl. oz". This product also correctly uses the UK fl. oz.
- The Mazuri products use the US fl. oz. The first one shows "500 ml, 16.9 fl. oz".
- The San Pelegrino products use the US fl. oz. It shows "11.15 fl. oz (330 mL)".
- The Sanctuary product explicitly states that US fl. oz is used. It shows the "75 ml, 2.53 US fl. oz".

So there you have it. In these images, we see the good, the bad and the ugly. Some use the UK fl. oz of 28.41 ml, some use the US fl. oz of 29.57 ml and some get it completely wrong and quote fl. oz figures that are wrong by both definitions. The use of US fl. oz is not so easy to see because it is only 4% larger than the UK fl. oz. By contrast, the UK imperial pint is 20% larger than the US liquid pint.

There is confusion in the use of fluid ounces where two definitions are used and where they are sometimes totally wrong. This sort of thing can undermine consumer confidence in the use of measurements. How can we be confident that we are getting the quantity described on the label? Are these US markings even legal?

The ending of supplementary indications will avoid this problem. When conversions are used, mistakes will sometimes be made. HM Government claims that it is necessary to use supplementary indications for the US market but ignores the fact that US customary volume measurements are not legal in the UK and that the use of UK imperial volumes cannot be used on US labels.

Comment from Robin Paice, UKMA Chairman:

"There are no particular rules about "supplementary indications", as they are not legally defined. They can be imperial, USC or Babylonian. So the rules about trade descriptions and advertising kick in, but since the USC fl oz is bigger than the imperial fl oz, you actually get more than is claimed - so there is no issue of short measure.

The opposite would of course be true with US pints and quarts (as Ronnie points out).

I wonder how many British people know what a fl oz is.

There is no hope of "ending supplementary indications" since the EU Directive specifically authorises them (worse luck)."

Overleaf are images of the products referred to by Ronnie.

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Aftershaves (assorted)



Deodorant



Elmlea



Heathcote and Ivory (back)



Heathcote and Ivory (front)



KTC



Mazuri



Sanpellegrino



Sanctuary

Boeing 787 flies at last



The first Boeing 787 was delivered to its customer - Japan's ANA airline.

The airliner has been the subject of discussions on MetricViews since 2007 with the latest from Eric Burns on 2011-10-11 at 13:13.

Eric posts:

With America's inch dominated industrial base steadily shrinking and metric countries output rising, the future for Americans does not look all that bright. Confirming this scenario is the prediction that a metric hating Republican President will do his "best" to perpetuate American "values" medieval measurements included. Maybe the land of the free has to hit rock bottom before it sees the errors of its ways? Hindsight will tell them eventually where they went wrong, but as so often in human affairs, by then it will be too late.

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For anyone interested here is my original post to the Seattle Times in reply to Dominic Gates article in the Seattle Times on 1 November 2007.

"This is an interesting article for one reason only; Boeing blames everybody else, but its management for the initial 6 months delay. Its by now replaced Vice President Bair asserts that some international suppliers contracted to design and manufacture sections for the Dreamliner are incapable of doing it. "They just could not do what we thought they could, said Bair. Some of the major airframe partners on the Dreamliner have performed so poorly that Boeing won't probably use them on future programs, he said".

What extraordinary statements to make! Did they not vet these companies properly before entrusting them with such demanding work? If not, who is to blame? The major metric companies, Alenia of Italy; Mitsubishi, Fuji and Kawasaki of Japan chosen to do this work are no backyard operators and know what they are doing.

Taking that into account one cannot help but think how much cumbersome old units contributed to this delay? One can well imagine metric designers and engineers struggling with units they have no feel for nor make sense to people used to simple mm.

If this is the case, Boeing blew the first billion dollars just to learn the obvious truth that metric users find medieval units cumbersome to work with. This is truly a high price to pay for obstinacy/arrogance.

It is interesting to hear of Boeing's problems with the 787, now flying at last. However it must be some 4½ years late rather than the 6 months referred to in Eric's letter to the Seattle Times of November 2007.

An article published by The Economist of the 3rd September 2011 states – "The delays were caused by suppliers" and "there were also hitches in the supply of smaller parts such as fasteners."

As a planning engineer working on the first 747 in 1969, your editor remembers some issues from those days. One of which was that the engines didn't produce the power required until sometime after the roll-out of the first planes. Many of them were consequently parked outside the Everett factory without any engines being fitted!



**One of the very first 747s in TWA's colours parked outside the factory without engines.
Photo taken by your editor in 1969.**

The 787's problems are likely to be more fundamental than just the use of 'customary' units or fasteners but they are not helped by the confusion that can be caused if sub-contractors have to change their working practices from the measurement systems and supplies that they are used to.

Now that the 787 is now flying, however, let's wish it and Boeing success for the future.

An example of daft size conversion

The example below shows just how daft it is to convert imperial sizes without taking into account the likely tolerance of the actual product dimensions. A plastic bag has a tolerance of perhaps as much as 5%. The 'approx' notice implies that the odd 1 mm or so is irrelevant so the 254 mm x 381 mm dimension could easily be 250 mm x 380 mm.

So why not?

It takes people to be thinking metric in the beginning of course!



Comment from reader

Michael Worstall writes to UKMA secretary:

"I have a suggestion for a correction to the latter half of the News which seems to be largely in italic script. This is of course an editorial decision, but ISO 1000 is quite specific in insisting that SI unit symbols are ALWAYS printed in upright font even if surrounded by italic script. Thus the two references to kJ on page 9 should be printed as kJ. And the ha on page 5 should read ha. The rationale behind all this system is of course that the unit symbols refer to quantities that are fixed, whereas the use of italic letters implies variables. Thus Einstein's famous equation is correctly written $E = mc^2$ because the speed of light is fixed (we believe).

It was hopeful to read that the usage of the italic m logo was raised at the AGM. And then again the French tennis authorities do not seem to know their Km from their km/h. One seems to be faced with a truly Sisyphean task to get people to print unit symbols correctly – hence the idea of a style guide. My input would be that the only sure aide is to provide everyone with a copy of ISO 1000. All the work of getting the rules straight has already been done and every attempt to repeat the rubrics brings the possibility of further errors."

Response from yours truly:

"Michael is absolutely right about the italic font used in the newsletter and the fact that the SI symbols should always be in an upright font.

I use an italic font for a style for quoted text and consequently when I select that text and apply the style, all the content changes. In future I will be more careful and change the font for the symbols as appropriate. A case of more haste, less speed!"

Thinking back to the days of typewriters, we were stuck with one font, and emphasis was achieved by capitals or underlining. So although the pc has provided many opportunities it has also brought pitfalls.

Additional comment:

"With regard to Michael's comment about ISO 1000, I certainly would not have access to it freely, whereas the BIPM brochure is available at no cost.

My problem with the BIPM brochure is that it is tucked away in a website that I think is rather difficult to navigate. Also, if you are looking for the correct way to portray kilometres per hour for example, you have to deduce this from text spread over several sections."

UKMA Secretary's comment:

I have to agree with him on cost. ISO 80000-1: 2009 is now £172.00 from BSI, though somewhat cheaper at 142 Swiss francs from IEC. Our aim with the style guide reference card is to present key points from the standard in a form that might actually be retained, referred to and followed. If funds permit, we are hoping that copies may find their way onto news editors' desks.

Finally... for all our readers, your editor has changed the font for quoted text to Agency FB in standard upright form to avoid the problem Michael has highlighted (no that is not a font joke!!).