



# UKMA news

The newsletter of the UK Metric Association

Campaigning for a single rational system of measurement

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## **A date for your diary**

The AGM of UKMA will be held on Saturday 3 July at 10:00 at the Franklin-Wilkins Building of the Waterloo Campus of King's College London – the same venue as last year. The AGM will be followed by the annual conference. Full details will follow in due course.

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## **Can you help?**

Many members have special knowledge and interests that they might be willing to volunteer to assist UKMA. The Committee now keep a note of these potential sources of help. If you think you can make a contribution, please e-mail the secretary, [secretary@metric.org.uk](mailto:secretary@metric.org.uk).

Skills include technical and scientific knowledge, media experience and journalism, but whatever your field, please let us know, as we never know what is coming up next and when we might want to call upon members for help.

There has also been a vacancy on the Committee since before the 2009 AGM. It is usually Committee members that drive forward UKMA's work programme, with assistance from other members. The Committee holds a telephone conference about ten times a year to review and co-ordinate progress and agree new initiatives.

If you feel able to join the Committee for the period up to the AGM in July 2010, then you can be co-opted. But you may also wish to stand in the Committee election this year. In either case, please do not hesitate to e-mail Robin, [chair@metric.org.uk](mailto:chair@metric.org.uk).

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## **Mothering Sunday – 14<sup>th</sup> March**



Simnel cake is specially associated with Mothering Sunday.

But do metric recipe measures come first or last?

BBC-food: ... a 18cm/7in cake tin.

DeliaOnline: ...cake tin measuring 8 inches (20 cm) in diameter

Of course, your (UKMA) cake will be metric only!

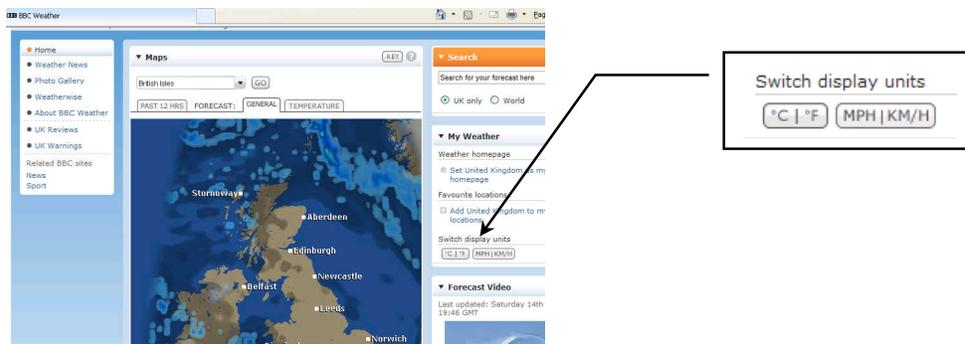
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## BBC Weather webpage

Do you remember this – from the September 2009 edition of UKMA newsletter?



Then as reported in December 2009's newsletter:



Much improved over the version illustrated in the September UKMA newsletter, shame about the upper case notation though.

**This is how it now looks!**



At last, they have now got it right!

### Calling all metric runners



### England Kilomathon - World's First Kilomathon - Sunday 14th March 2010

The England Kilomathon™ will run from Nottingham to Derby on 14th March 2010

- The Kilomathon (pronounced Kil-om-athon) is a 26.2 Kilometre Road Race that has been developed by GSI events, the same company that organise the Edinburgh Marathon, one of the fastest growing marathons in Europe.
- The Kilomathon is the perfect distance for anyone training for a marathon.
- The Kilomathon is the perfect distance for anyone that has run a half marathon and looking for a stepping stone to the marathon distance.
- The Kilomathon is the perfect race for anyone looking for a new running challenge.
- The Kilomathon is the perfect distance for anyone that has hit the wall at 18-20 miles but is still looking for a long distance challenge.

#### Editor's note:

Interesting name and pronunciation, wonder how they pronounce kilometre?

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### New from the US metric association

#### *Extracts from Metric Today Nov-Dec 2009 edition:*

#### **1. "Only English Units Are To Be Used in the MUTCD"**

The Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD) is the Federal Highway Administration (FHWA) publication that defines the standards for traffic lights, signs, pavement markings, etc., for streets, highways, pedestrian facilities, and bikeways in the U.S. The 2009 edition of the MUTCD officially replaced the 2003 edition with the publication of a Final Rule in the 16 December 2009 Federal Register (technically, the new version took effect on 15 January 2010).

The 2009 edition incorporates many changes—the Federal Register notice discussing the revision has 135 pages—and one change involves metric measurements.

The 2003 edition generally used dual units: "Throughout this Manual all dimensions and distances are provided in the International System of Units, a modernized version of the Metric system, and their English equivalent units are shown in parentheses."

For the 2009 revision, the FHWA revisited that practice. Their analysis:

"The FHWA received several comments regarding the use of metric units in the MUTCD. The NCUTCD [National Committee on Uniform Traffic Control Devices], six State DOTs, ATSSA [American Traffic Safety Services Association], an NCUTCD member, and two traffic engineering consultants suggested that the metric units be removed in their entirety or that the English units precede the metric units, and a traffic engineering consultant suggested that the MUTCD continue to be issued with both systems of measurement.

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“Because metric units are not currently used in the U.S. for traffic control device applications, the FHWA determines that only English units are to be used in the MUTCD text, figures, and tables and places metric equivalent values for all English unit values used in the MUTCD in a new Appendix A2 in this final rule. This preserves the soft conversions of the English to metric values in the MUTCD while also providing a document that is less cumbersome to read and apply. This change is consistent with an Informational Memorandum from FHWA’s Executive Director, dated November 25, 2008, stating that use of metric measurements will now be optional in all FHWA documents, including letters, memoranda, publications, reports, and information on FHWA Web sites.”

Accordingly, the new MUTCD uses non-metric units within the text, although it retains a sentence approving of metric construction projects by stating the guidance: “If Metric units are to be used in laying out distances or determining sizes of devices, such units should be specified on plan drawings and made known to those responsible for designing, installing, or maintaining traffic control devices.”

Alas, the FHWA went farther than merely switching to non-metric units in the text; it also **eliminated metric road signs**. The MUTCD no longer authorizes symbols for metric units in the table of acceptable abbreviations for use on signs and no longer includes the few metric-specific signs. Although most metric signs were identical to non-metric versions except for unit symbols, the 2003 MUTCD included two metric-specific signs: one for metric speed limits (see [www.metric.org/laws/mutcd.html](http://www.metric.org/laws/mutcd.html) for the design of that sign) and a “METRIC” plaque intended primarily to accompany metric weight limit signs.

Visit [mutcd.fhwa.dot.gov](http://mutcd.fhwa.dot.gov) for the latest MUTCD.

### **Editor’s note:**

Sad to see metric units being dispatched to an appendix, but is there any point in describing designs using “English units” as their basis with metric conversions in parentheses? Surely to be metric means that the base designs of road layouts and signage is performed solely using rounded metric measurements, not conversions. What construction engineer would take any notice of the converted dimensions?

As for road signs bearing metric symbols, it seems that the US is in more-or-less the same camp as the UK.

### **2. Exports: “We Don’t Make 2x4’s. We Make 45x90’s.”**

According to Mason County Forest Products CEO Phil Johnson, its mill in Shelton WA is running only because of exports. “Early on, we were zero percent export. I think probably except for a few lower grade items, right now we’re really 100 percent export, and have been for the last two quarters.”

“We understand and we talk metric now,” says Johnson. “You know, we don’t make 2x4’s. We make 45x90’s.”

A news report by Puget Sound Public Radio station KUOW says Johnson bought two Washington lumber mills near the peak of the housing boom. The one in Winlock is shutdown indefinitely. The one in Shelton survived because it was retooled to supply overseas markets, selling boards, studs, and trim to Japan, China, the Philippines, Taiwan, France, and Germany.

Go to [www.kuow.org/program.php?id=19176](http://www.kuow.org/program.php?id=19176) for the full news report about the northwest lumber industry. MT

### **Editor’s note:**

So why do most sales people in UK building merchants still talk about 8x4 sheets of plywood even though they are described as 2440x1220 mm? The thicknesses are always described (even by those same sales people) as 12 mm, 18 mm, etc.

An internet search may find 2400x1200 mm sheets, but they appear to be rare. Do rounded metric sized products cost more? Presumably, if everyone buys products that are in fact inch-based and merely described in converted metric terms, the volumes are greater and the cost lower.

But are there construction penalties from using inch-based components in a metric based design?

And, why is plasterboard sold in 2400x1200 mm sheets?

Can any reader provide any answers to these mysteries?

**Will the European Commission challenge US labelling rules?**

(from [metricviews.org.uk](http://metricviews.org.uk))

A recent posting by NIST (the National Institute of Standards and Technology) has prompted this question: Are American labelling requirements now illegal under WTO rules?

NIST, which is part of the US Department of Commerce, recently issued the following statement on its website:

“The EU Metric Directive [sic] (80/181/EEC), scheduled to go into effect January 1, 2010, has been modified to allow the continuation of both supplemental (U.S. customary, inch-pound) and metric units for consumer goods sold in the EU. The rule was published on May 7, 2009 in the Official Journal of the European Union.

The Directive instructs the European Commission to produce a report to the Parliament and Council regarding the smooth functioning of the internal market and international acceptance of SI units by December 31, 2019, including proposals where appropriate.

Demonstrated progress will be important for U.S. stakeholders to achieve long-term acceptance of supplemental units [sic] in the EU. Modifying the U.S. Fair Package and Labeling Act (FPLA), which currently requires dual labeling, to permit optional metric labeling is an example where greater international marketplace acceptance of SI units can be achieved.”

[This report is slightly inaccurate in that the Directive has been in force since 1980, and in any case its proper informal title is the “Units of Measurement Directive”]

The statement is so badly written that it is difficult to work out what it means. In particular, the final paragraph, in so far as the words mean anything, appears to be gobbledegook. There is no question that supplementary “units” should “achieve long term acceptance” in the EU. The recent amendment to the Directive was simply a concession to exporters to remove a potential (alleged) business cost and/or barrier to trade – that is, the requirement for separate labelling for the EU and US markets. The only units legal for trade in the EU will continue to be metric (with the minor exception of the pint (imperial – not US) in limited circumstances in the UK and Ireland), but supplementary “indications” (not units) will be permitted on labels. The inability of NIST to get its head round this simple concept is depressing.

Perhaps I read too much into it, but why did the statement include reference to the review in 2019? Surely, NIST is not planning to lobby the EU to allow American units as primary units with no metric equivalent stated? In fact the obvious interpretation is that Directive’s intention is that the Commission should report on whether it will still be necessary to permit supplementary indications.

The statement’s final sentence is also nonsense. Amending the Fair Packaging and Labeling Act (FPLA) will not achieve “greater international marketplace acceptance of SI units”. They already are accepted internationally – except in the USA!

If NIST feel that their statement has been misinterpreted, then perhaps they can explain what they

However, NIST is right to focus on the issue of whether the FPLA should be amended to permit metric-only labelling on goods that are regulated at the federal level. Current federal law requires both metric and US customary units on regulated goods, and so far all attempts to introduce into Congress an amendment to permit metric-only labels have been blocked as a result of lobbying by powerful US business interests such as the Food Marketing Institute (FMI). (Illogically, they seem to believe that allowing voluntary metric-only labelling would compel them to change the sizes of their packages). Further details can be read on the USMA website at <http://amar.colostate.edu/~hillger/fpla-update.html>

(It should also be explained that some goods that are not regulated at the federal level may be regulated at the level of the State, and most States do in fact permit metric-only labels on these goods).

The question now arises whether the FPLA is a non-tariff barrier to trade. Such barriers, unless they can be justified on legitimate grounds (e.g. health and safety), are illegal under the rules of the World Trade Organisation (WTO), and this was one of the reasons why the European Commission

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agreed to support the continuation of supplementary indications on packages within the EU. Otherwise the USA might have filed a complaint against the EU. However, arguably, the boot now appears to be on the other foot.

European (and other non-US) manufacturers would naturally expect to label their goods in metric units only. However, if they want to export those goods to the USA, they will need to incur an increased business cost by adding an additional label or alternatively creating completely different packaging for the US market. Of course, they could simply standardise on a uniform dual-unit label and use this in all markets worldwide – but why should they? Since the EU's concession to the USA was not reciprocated, its effect is that EU manufacturers who currently export or might in the future export to the USA have effectively lost the option to label their goods in metric units only. The USA has effectively imposed dual-unit labelling world-wide – a form of American imperialism.

Can anything be done to retrieve the situation? Whether a complaint to the WTO would be upheld probably depends on what view its Appellate Body would take of the argument that EU (and other) manufacturers should be free to label in metric-only and should not be compelled to dual-label simply because a single state (however powerful) refuses to use the same measurement system as the rest of the world. Arguably, if the USA wishes to engage in international trade, it should be expected to accept the international system of measurement and not impose unnecessary burdens on foreign manufacturers.

In my view the European Commission should be seriously considering such a complaint – or at least it should let it be known (diplomatically of course) that unless there is progress on amending the FPLA, a complaint might be filed. Without such an implied sanction, it is difficult to see how the US Congress might be persuaded to drop its opposition.

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### **Minister agrees it is time to clear up “very British mess”**

(from [metricviews.org.uk](http://metricviews.org.uk))

In response to UKMA's patron, Lord Howe, the junior Health Minister, Baroness Thornton said she “absolutely agreed” that it is “time for all of us, in all parties,.... to work together to clear up this long-standing and very British mess.” She added “This is a matter that will solve itself over time but it is our job in government to move as fast as we can towards people recognising and feeling comfortable using metric calculations.”



A scene from the video clip which may be viewed at this link:

<http://www.youtube.com/watch?v=jKHMJO6k9zY>

The background to this exchange was covered in our recent article “NHS risking patients' lives with imperial scales”, which gives links to the relevant documents. Briefly, an official report found that,

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despite previous warnings, 30% of NHS hospitals were still using scales that are switchable between metric and imperial, and 10% were actually being used in imperial mode. This risks wrong doses of drugs (which are calculated in metric) being administered to vulnerable patients – with possibly disastrous consequences.

The Minister's statement is welcome as a public confirmation that it really IS Government policy "to move toward full metrication in time" (quoted from a letter from the Science Minister, Lord Drayson). However, I do have reservations about her comment that "this is a matter that will solve itself in time". By this of course she was presumably echoing the widespread assumption that, since children are educated in metric units, as older people die out, metric units will gradually become the default for the general population, and imperial units will fall out of use. If only this were true ...

Unfortunately, the evidence suggests otherwise. The alternative view is that, after ca 35 years of metric education in schools, acceptance and use of metric units varies with occupation, educational standard and social class – and also with the mistaken perception that metric units are "foreign". On this view, we have reached a stable but highly unsatisfactory situation of "two systems" with no prospect of resolution – without specific Government action.

The other reservation that one must have about the Minister's statement – however welcome it may be – is that although she speaks for the Department of Health, the policy is not carried through to other aspects of Government – notably Transport.

Going back to the exchange in the House of Lords, it is good that the Health Department is now committed to issuing an "alert" reminding all NHS hospitals of the importance of metric-only scales. This will reduce the risk of a catastrophic accident resulting from confusion over measurement units. So let us congratulate Baroness Thornton and hope that, with her support, stones, pounds and ounces can finally be eradicated from the NHS.



Lord Howe addressing Baroness Thornton "...time for all of us, in all parties,.... to work together to clear up this long-standing and very British mess."

**More (UK) measurement muddle!**

How can any product labelling designer come up with this? Is this an illustration of an imperial-measurement mindset desperately trying to justify itself?

A simple paint brush at the low-end of Tesco's product line like this would probably not attract much marketing management time but someone had to have made the decisions that have resulted in this.



Is this information just for 'older people'?  
Does everyone know what this means?  
What does it refer to?  
Isn't 'Loss free brush' a sufficient title?

Why 50 mm (approx.) when the product is clearly 50 mm (no approx. about it at all)?  
(Both sides are marked 50 mm only)

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**YouTube - American Chopper vs The Metric System**

If only this newsletter could show video!

For readers who can access the internet, try this - <http://www.youtube.com/watch?v=Omh8lto-05M>

For those who do not, the scene is from American Chopper, a TV program about custom motor bike builders.



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The dialogue goes something like this:

What's the difference between six and seven eighths and seven and a quarter? The boss (with moustache) asks his assistants.

The first reply, three eighths is correct but the boss replies 'an inch and three eighths?' presumably knowing that the real difference is more than three eighths of an inch.

He then gets himself totally confused saying 'six and a quarter and six and seven eighths', after which there is mayhem for a good two minutes. In the end, the dimensions are deemed to be (by one of the assistants) five and a half and seven and one eighth! The difference now having been worked out as one and five eighths.

Seeing is believing!

He also should not be using a tape measure if he requires any precision and, of course if he was to be 'switched-on to metric', he should have a metric-only measuring device!

Not all comments listed with the video are of the 'I'm an American and I'd rather die than use the metric system' variety.

One commentator says "...it's not that simple, because here in the US, most people only know the english system, I can't just go out and buy for example a scale to weigh myself without ordering it online and if I want to tell someone what I weigh I have to convert it for them in english"

Another comment, however, comes from a friend of UKMA, Pat Naughtin who writes:

*"Notice that the bike they are working is an all metric Harley-Davidson. In this case they are looking for the design and build dimensions of 180 millimetres at the front and 140 millimetres at the back. The script should go:*

*Now let me see — 140 millimetres at the back and 180 millimetres at the front — what is the difference between 180 and 140 — could you three other guys come and help — I need to know the difference between 180 mm and 140 mm — does anyone have a calculator?"*