



UKMA news

The newsletter of the UK Metric Association

Campaigning for a single rational system of measurement

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In this issue:

Season's greetings	1
Chairman's New Year message	1
How much change is Obama likely to bring to the US?	2
Mystery shopper	3
Dual-unit weighing scales can be harmful to health - official	3
Wikipedia	4
Metrication raised at Which? AGM	4
A very strange measurement.	5
Clothes sizing	5
What a load of rubbish	6
Is a pound a mass or a force?	6
From Yocto to Yotta	7

Season's greetings

Here's wishing all UKMA members a very merry Christmas and happy New Year.



To bring a little seasonal colour, here is a typical Christmas tree from Argos:

6ft Slim Cluster Tree.

Details

Width 89cm/35in.

etc...

Typical mixture of imperial and metric measures of course...

Now try using the web to find a metric only recipe for Christmas pudding for example. Your editor found something close (after a lot of trying) on a US website!! Here is a taster (sorry about that pun):

Christmas Pudding Fritters

250 grams Self raising flour

125 milliliters Beer

125 milliliters Milk

125 milliliters Cold water

Left over Christmas pudding

Plain flour

Deep fryer with oil

Maybe the Americans will – eventually- do a better metrication job than us. See Chairman's New Year message and article later in this newsletter.

Chairman's New Year message

2008 seems to have been a year of unrelenting, anti-metric propaganda from the media. As a result of the decision of the EU to lift the 2009 deadline on "supplementary indications", not to mention the extraordinary reported comments of a Government minister that Trading Standards Authorities should not enforce the Weights and Measures Act, opponents of completing metrication have been claiming total victory in their defence of obsolete measures.

Little do they know.

In reality, despite these apparent setbacks, nothing much has changed.

- Shops and traders are still required to weigh and price in metric units (with the option of a supplementary indication). All the supermarkets (ca. 90% of food shopping) and the majority of small shops and market traders comply with the law.

UKMA news - the newsletter of the UK Metric Association

- The Weights and Measures Act is still in force. Trading Standards Authorities have a legal duty to enforce it, and (whatever may have been said by a populist politician) Government ministers have no legal power to prevent its enforcement.
- In fact, I recently received a letter from the responsible Minister confirming that "The Government's longstanding policy in relation to units of measurement is to move towards full metrication in time, but at a pace that recognizes that a significant proportion of consumers are still more comfortable with using imperial units". He also confirmed that the Government has no plans to change the law.

There are also encouraging signs of progress.

- The Department for Transport has issued advice to all highway authorities that all future road signs giving height or width restrictions should be in both metric and imperial units.
- We see increasing signs of primary, metric usage in the more intelligent branches of the media.

- While we should not hold our breath, the Presidential and Congressional elections in the USA give some reason to hope for faster progress in that country.

So despite recent minor setbacks, we should not be downhearted. There will also be further opportunities to advance our case when the restrictions on package sizes are lifted in April 2009, and shoppers will have to rely on the metric "unit price" if they want to make value-for-money comparisons. UKMA's Committee will consider how best to use this opportunity.

May I wish all members a successful 2009 – both in their personal lives and in their campaigning for completing metrication.

Robin Paice

How much change is Obama likely to bring to the US?

US President-elect Barack Obama has a website <http://ideas.obamacto.org> that asks "What are the top priorities?" for the USA's first CTO (...).

Not surprisingly, the first priority listed on this internet based forum is "Ensure the Internet is widely accessible and network neutral" 12,524 votes were attracted to this at the time of writing.

Perhaps more surprising is the fourth item "Complete the job on metrication that Ronald Reagan defunded" with 6039 votes. The statement that leads the forum 'thread' says:

The government has failed to take the lead on completing the task of moving the country completely to the SI metric system. George H.W. Bush tried to do something about it, but gave the bureaucrats an easy out. Failure to follow the same measurement standards as the rest of the world is costing US industry something like \$1 trillion per year.

By the way...

Did you know that there is an American equivalent of our UK metric association? Its opening statement, shown on their website is:

The U.S. Metric Association (USMA), Inc., is a national non-profit organization that was founded in 1916. It advocates U.S. conversion to the International System of Units, known by the abbreviation SI (ess-eye) and also called the modern metric system. The process of changing measurement units to the metric system is called metric transition or metrication



It has been agreed that we will seek membership of this organisation and should be able to bring you snippets from their publication, Metric Today

Some contents of the 2009 January/February issue:

Is NASA serious about the metric system?

How are hospitals reducing the chances of medication errors?

Which units are simplest for sizing children's clothing?

Why is the Coast Guard adding metric units to some regulations?

Will the UK change its remaining package size laws?

Mystery shopper

UKMA has received evidence that the recent media hullabaloo about the prosecution of a market trader in Hackney was a deliberate setup, designed to reawaken interest in the flagging campaign to preserve obsolete imperial measures.

This is the report from UKMA's mystery shopper:

"I managed to get away early today (instead of tomorrow) with plenty time to get off at Dalston for the Ridley Rd Market.

In brief, it is one of the most metric markets I've seen in the UK! It is even more kg-only than last time I went through.

All the meat and fish stalls and shops are either predominantly kg-only with some having per lb, usually underneath (but that would be about 3 out of approximately 10 shops). All the fruit and veg stalls showed both kg and lb, varying in kg first or lb first...but well signed and all scales set to kg/g. There were NO lb only stands. A couple of stands seemed empty so may have been where Devers (not to be seen) had/has her stall...

Finally, I walked a good 3/4 of the way through this very long market before I heard ANYONE speaking English! (Absolutely true).

Having done alot of shopping there (as the prices are like a step back in time after Notting Hill) I did get alot of chats with the traders. Mostly they were Asian, Middle Eastern, African (I overheard other shoppers all asking for kilos) and they said no-one has ever shown a sign of confusion there.

The English "barra boy" types, who had (like everyone else) scales set to metric, sold me my purchases without fault weighing up exactly in kilos. They were quite jokey, so I got to ask them where the "Ridley Road media star" was? They pointed further down where I'd been and told me it was all a set-up, as the so called customers had been asked on camera "how many POUNDS do you think this weighs". Then (God knows where they found these "confused Caribbean" people) they replied for the cameras an amount in pounds while filming next to Devers and her stand. Now that's outrageous!!! (But typical of the media trying to create a story out of nothing.. Seems one big storm in an imperial teacup!)"

So now we know. Or rather our suspicions are confirmed. The great majority of both traders and customers in Ridley Road are perfectly happy with using metric scales and measurements, and there is little local sympathy for the antics of Ms Devers and the bogus "metric martyrs." Some elements of the media have been complicit in trying to create the opposite impression. None of this is very surprising, but it is disappointing that senior politicians, who ought to know better, appear (or pretend) to have been taken in by it. Sad.

Dual-unit weighing scales can be harmful to health - official

In a damning report on the state of medical weighing equipment and procedures in hospitals across the country, LACORS, the Local Authorities Coordinators of Regulatory Services, has highlighted the dangers of using weighing equipment that can display units other than the standard metric units which are used for calculating medication and radiotherapy dosages, diagnosing illnesses and monitoring treatment.

The report states:

"One of the most potentially harmful issues is that of switchable scales - those that can display metric, imperial and other units. The risk is that medication could be administered based on a readout that was assumed to be metric."

In the first official recognition for many years of the serious issues that arise from a muddled approach to units of measurement, the report includes the following recommendation to hospital trusts:

"From now on, scales purchased for medical purposes should only be capable of metric display. There should be no capacity for switching or dual readouts. Trusts should be aware of the pitfalls of using switchable scales and may wish to consider replacing them, or having the switches removed. Conversion charts can be provided for those patients who wish to know their weight in imperial."

The report concludes that, should their recommendations be followed, hospitals will benefit from significant improvements in patient care, and the potential to demonstrate due diligence in relevant clinical negligence claims.

Wikipedia

Most members who browse the internet will have come across Wikipedia. It is a sort of electronic DIY encyclopaedia which anyone can contribute to and anyone can edit. On the face of it, this might seem to make it fairly unreliable, but in practice it contains lots of useful information, and on non-controversial matters I have generally found it fairly accurate. There are rules for contributing and editing, and the managers of the project do sometimes intervene if rules are persistently broken. Articles are expected to cite proper references for their content and give links to both online websites and other published material. There is a style guide, which advocates primary use of metric units.

So provided you are aware of its possible weaknesses, it is worth trying as an initial source – subject to checking out the references and links. I suspect that many journalists use it as a first port of call. BUT – and this is coming to the point of this article – where the topic IS controversial, bias and inaccuracy do intrude. A prime example is the suite of articles about the metric system, metrication and related topics. These are full of myths and misinformation. If they are not challenged and corrected they will continue to be believed and repeated by journalists and even serious researchers all over the world.

So my purpose in writing is to appeal to members, if they have a few moments to spare, to click on http://en.wikipedia.org/wiki/Main_Page and take a look at some of the articles – for example http://en.wikipedia.org/wiki/Metrication_in_the_United_Kingdom – and I think you will see what I mean. As indicated above, anybody can edit an article, correct any inaccuracies – even rewrite it totally. You first need to register, and it would be wise to read the rules carefully and try out the tutorial, to be found at <http://en.wikipedia.org/wiki/Wikipedia:Tutorial>. When you have mastered these, you can make a real contribution to UKMA's work by reviewing relevant articles, keeping an eye on them, visiting them regularly and checking that nobody has reversed any changes that you have made. Good luck.

Robin Paice

Metriation raised at Which? AGM

In an effort to get completing metriation on the agenda of the Consumers' Association (CA – aka "Which?"), three members of UKMA, including its Secretary and Chairman, attended the CA Annual General Meeting in London on 10 November. (Interestingly, the venue was the Institute of Physics, which had subsidised our publication, VBM, in 2004). Lord Howe, Hon. President of CA, was also in attendance.

The formal meeting was followed by a question and answer session, so when the tedious business of approving the annual report and accounts was completed, Robin Paice was able to get in first with the following question (slightly abbreviated):

"In the 1970s CA was a strong supporter of completing metriation. Thirty years later we are still in a muddle of two systems, yet CA is silent on the subject. So my question is: Does CA still believe that a single, legal system of weights and measures is fundamental to consumer protection, and if so will CA support the campaign for early completion of the metriation programme?"

Robert Pickard responded that, as a scientist, he personally was in favour, but that the "executive" of CA (meaning their employed staff) had reservations, and he handed over to Helen McCallum, Policy and Research Officer, to reply on their behalf. The gist of her reply was:

- a) "CA has no evidence of consumer detriment. Consumers are not complaining about it.
- b) The problem will sort itself out eventually of its own accord as younger, metric-educated people predominate.
- c) CA has limited resources, and this is not a priority."

These are of course familiar and fallacious arguments.

In a subsequent conversation, the Chief Executive, Peter Vicary-Smith, while conceding that it might be better if there were a single system of measurement, insisted that consumers are not concerned about the issue, and that CA will not prioritise it, adding that the Government is not listening since they see it as a vote-loser, and therefore it would be futile to pursue it. It was pointed out to him that declaring support for a single system need not cost anything, but he replied that that was not the way CA did things. He did not seem to be a person who is open to persuasion.

CA prides itself on its claim that, as it does not accept advertising in its magazine, Which?, it is immune from commercial pressures and is therefore a fearless defender of consumer rights. Yet the

UKMA news - the newsletter of the UK Metric Association

impression was given that at the root of CA staff's opposition to talking about metrication are commercial considerations. They feel that enforcing and completing metrication is politically unpopular, and for CA to espouse this cause could arouse hostility from tabloid newspapers and populist politicians, which in turn could affect their membership figures and sales of their magazines. One does not detect any real commitment to consumer protection or rights – as distinct from doing research into the best value washing machine. UKMA is considering its next steps.

A very strange measurement.

Registration of land in England used to be measured in feet; usually at a scale of 1/1056ft. Nowadays plans are Metric and are mostly drawn to a scale of 1:1250m. However, there is one strange circumstance where an entirely different measurement is used.

Have you ever purchased a house? Perhaps you have purchased a house that came with mineral/mining rights? The registers of these transactions can hold some strange and interesting things, such as clauses about keeping pigs, but if you lived in the City of London you could have an altogether stranger register.

In the City of London, you can own airspace. You can actually own a portion of the airspace above City landmarks. How is this done? The portion that you own is described in detail by using Ordnance Datum Newlyn. This is a vertical coordinate system, measured in metres, that uses the mean sea level at Newlyn, Cornwall and 200 fundamental benchmarks (FBMs) across Britain. There are also more than half a million lower-accuracy benchmarks to assist with this measurement. This system is more frequently used for map contours.

If you buy airspace in the City of London you will be given a plan showing the shape of your airspace as if it were on the ground. This plan will come with an adjoining register description of your airspace, detailing exactly where it starts and where it finishes in relation to Ordnance Datum Newlyn. This is peculiar to the City of London, as real estate is so expensive and landowners try their best to preserve their rights of light and air. It complicates the process of buying land in the City as you will need to check whether any balconies you might be planning to build fall into anybody's registered airspace!!

By guest contributor L.Shopland

Clothes sizing

A UKMA member was with a group of mothers in Cambridgeshire recently complaining that they had ordered the wrong sizes of school uniform from a mail order company. Everything was sized in imperial measurements which they claimed they didn't understand and had misunderstood. There was a lot of confusion as the delivery notes also said items could not be changed.

It seems their school, Linton High School, Cambs. recommends uniforms from the company www.mydollyandi.com

My host had ordered a 40" chest clothes for a 10 year old child. They thought they would be 40 cm chest. Friends had done the same.



Jerzee - Girl's FULL ZIP Fleece :
Brand: Jerzees
Fabric: 100% polyester, pill resistant
Description: Full Zip length, turn back hem with cord and toggle. Fashioned cuffs for comfort and style. Front zip pockets
Available colours: Black, Bottle Green, Bright Royal, Burgundy, Charcoal, Red and French Navy
Available sizes: 26" (3/4yrs), 28" (5/6yrs), 30" (7/8yrs), 32" (9/10yrs), 34" (11/12 years), 36" (14/15yrs)

Enter Quantity	Size
<input type="text" value="0"/> Size(s): 26 inch to 34 inch chest- £13.49 each	Black/26inch
<input type="text" value="0"/> Size(s): 36 inch chest- £16.49 each	Black/36inch

Why only inch sizes?

Whatever happened to Mothercare? It used to sell children's clothes exclusively in cm sizes - Ed

What a load of rubbish

Bin liners – have you measured your bin lately? – To the nearest millimetre of course.
What is the volume?
What is the volume of a standard sized bin?

Scan of portion of bin-liner wrapper



Can you see the measurements?

Rim 1470mm, depth 1054mm in white lettering on a pink background.

Super legibility!!!

The implication of the dimensions provided is that this roll of refuse sacks, bought from Sainsbury's, must be so precisely manufactured that the depth is shown to the last 4 mm!
But what is the volume of the bag? Will it fit my bin? Is the rim dimension the circumference or diameter?
How about a standard (ISO) range of bins, and bin liners to make life a little easier?

Is a pound a mass or a force?

As a student, many years ago, your editor, together with others, was faced with this question. To attempt to answer the question, we had to suffer poundals, pounds-force and slugs!!
I don't remember which was which but now enjoy the simplicity of the kilogram being a mass and a newton being a force (1 kg being accelerated at 1 metre per second squared as all UKMA members will know!).
The illustration below shows that the old question still needs to be resolved. Perhaps some credit should be given to the usually all imperial Sunday Times. It can sometimes, however, include nice, easy to understand metric units!



Why suddenly change from metric to imperial?

Why nicely rounded compared with weight of 8,422 kg?

From Yocto to Yotta

Can you remember and quote all metric prefixes from 10^{-24} to 10^{24} ?

Here they are. If you have a quiz game during the holidays, try out some of them on family and friends and have a bit of fun!

Factor	Name*	SI prefix	Symbol
10^{24}	septillion	yotta	Y
10^{21}	sextillion	zetta	Z
10^{18}	quintillion	exa	E
10^{15}	quadrillion	peta	P
10^{12}	trillion	tera	T
10^9	billion	giga	G
10^6	million	mega	M
10^3	thousand	kilo	k
10^2	hundred	hecto	h
10^1	ten	deka	da
10^{-1}	tenth	deci	d
10^{-2}	hundredth	centi	c
10^{-3}	thousandth	milli	m
10^{-6}	millionth	micro	μ
10^{-9}	billionth	nano	n
10^{-12}	trillionth	pico	p
10^{-15}	quadrillionth	femto	f
10^{-18}	quintillionth	atto	a
10^{-21}	sextillionth	zepto	z
10^{-24}	septillionth	yocto	y

* US naming standards. i.e. billion is a thousand million, which seems to be the generally recognised norm in the UK these days.