

# **UKMA** news

The newsletter of the UK Metric Association

Campaigning for a single rational system of measurement

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# **December 2009**

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# New Year greetings to UKMA members

Here's wishing every UKMA member a very merry Christmas and happy (metric) New Year 2010.

Sorry son... Couldn't agree on global warming, better luck with metrication in 2010...



# New Year message 2010

Although metrication has largely dropped out of the news in 2009, there has been tangible progress for our campaign.

Most important was the DfT's long overdue admission that, in an age of international road traffic, imperial-only signs for height and width restrictions are no longer tenable. The DfT consulted on requiring all such signage to be dual unit within 4 years (we would of course have preferred metric-only. in accordance with the UN's Convention on Road Signs and Signals, and within 12 months), and despite hostility from Eurosceptics, there is little doubt that this change will go through. This change of heart probably has more to do with pressure from Network Rail and road hauliers (and their insurers), who have to bear the cost of bridge strikes, than from any logical argument by ourselves, but at least it is progress. On the downside, the DfT is still maintaining (contrary to general Government policy) that road signs are a stand-alone system and that distance signs and speed limits will never be converted.

The biggest disappointment – though entirely expected – was the refusal of the Business Department to permit the (voluntary) sale of draught beer and cider in convenient metric measures. The full story can be read on our blog at <a href="http://metricviews.org.uk/2009/11/bis-sticks-with-pints-of-beer-but-only-on-draught/">http://metricviews.org.uk/2009/11/bis-sticks-with-pints-of-beer-but-only-on-draught/</a>.

It is interesting – though unedifying – to read the feeble and irrational arguments put forward by opponents of such a sensible change. What it really demonstrates is the power of the Daily Mail and other tabloid (and broadsheet) papers to intimidate politicians and civil servants into spouting nonsense.

Speaking of the media, I had a rare opportunity on 19 October – albeit very briefly – to put a rational viewpoint on the BBC's flagship Radio 4 "Today" programme. This was to discuss the road signs proposal (discussed above), but sadly the programme editor thought that inchoate ravings from a UKIP spokesperson would make better radio than a sensible discussion about the current issue. I had suggested that it would be better to have a debate with a DfT spokesperson (after all, they are consulting on it) – but to no avail. In the end I didn't get much opportunity to state our case, but at least I hope that I sounded reasonably sane. Incidentally, if anyone wants to hear the item, it is available on the homepage of UKMA's website at www.ukma.org.uk.

The amendment to the EU's Units of Measurement Directive, permitting imperial supplementary indications without time limit and deleting the requirement to "fix a date" for converting road signs, finally made it through the EU's legislative process, and the Business Department has now published the draft revised UK Regulations. These are expected to go through unopposed and will come into effect on 1 January 2010. They will of course make precisely no difference to the current situation.

UKMA now has a presence on Twitter. For those unfamiliar with it (as I was until a few months ago) it is a way of sending out very short messages drawing attention to something topical. Although I was initially deeply sceptical of it, I have actually found it quite useful – and we do actually need to keep up with modern means of communication – especially since we are generally denied a fair hearing in the more conventional media. UKMA's Twitter address is <a href="http://twitter.com/UKMetric">http://twitter.com/UKMetric</a>.

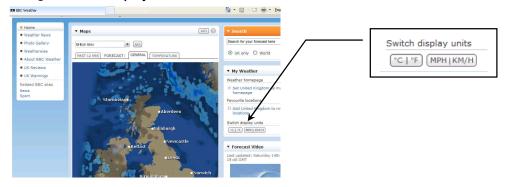
So what of next year, 2010? The Government clearly hopes that it has now killed off the issue of metrication, and that the current muddle of "two systems" is now the permanent, settled solution. Sadly, organisations that should know better – the TSI, consumer groups, scientific and professional institutes, the CBI – are complicit in this unspoken conspiracy not to mention the "m" word. Our task is to keep the issue alive, and we need to seize every opportunity to confront the Establishment with the uncomfortable truth – that the UK's costly, accident-prone, and dysfunctional measurement system is increasingly an embarrassment in a metric world.

May I wish all members of UKMA (and our thousands of supporters) a successful and prosperous New Year – both in campaigning for completing metrication and in their private lives.

**Robin Paice** 

# **BBC** Weather webpage

After some correspondence from UKMA members, the BBC website weather page has been changed to show display units as shown:



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

This just shows that organisations such as the BBC do actually listen and react to comments from the public. We all need to keep up the pressure until it becomes the norm to use metric symbols correctly.

# Tesco milk

Re: a note from Andrew Thompson in Metric Views...

A couple of months back I noticed that Tesco had introduced 2 litre bottles of their "Pure" brand fresh milk (possibly to take on the 2 litre bottles of the Cravendale brand). I noticed today that they have now introduced a smaller 1 litre size. Small steps, but I never thought Tesco would beat Sainsbury's into introducing metric sizes for regular milk.



At the same time, 4 pint bottles were on 'offer' at 2 for £3. Which is the best value? Answers on a postcard.

No don't really, the answer is that the 2 litre works out at 62.5p per litre, that bit is easy. The 4 pinter works out at 66p per litre, not so easy to work out!

Of course, the 'offers' didn't last long.

Just for fun... Martin Vlietstra says:

Milk is one of the few exceptions where metric units need not be the principal units – but only in RETURNABLE containers. If anybody wants to cause a spot of bother, take your empty 1, 2, 4 or 6 pint milk containers to wherever you bought them and ask them where they can be deposited.

# From across the pond

#### From Metric Today Nov-Dec 2009 edition:

"Had a pint of beer at your local pub lately? Not likely, and certainly not legally. It turns out the iconic, time-honoured working man's drink does not technically exist in B.C., due to a strange and disparate brew of federal and provincial regulations," reports a 21 August 2009 Vancouver Sun article.

Under Canadian law, if you advertise a pint, you must serve a pint—and that's an Imperial pint, 568.26 milliliters. But provincial law in British Columbia says that individual servings of draft beer cannot exceed 500 milliliters. The Sun ran across the contradictory laws while conducting a survey of bars in Vancouver to see whether those claiming to serve pints really did measure up.

As the Sun puts it, "A pub that pours a full 20 ounces meets the federal requirement, but runs afoul of provincial law. A pub that pours 17.5 ounces or less stays within the provincial limit but breaks the federal law." (An Imperial pint contains 20 Imperial fluid ounces.)

Their survey found that bars weren't particularly accurate in their claims to serve a pint: "The Sun found pubs served 17 ounces on average, representing a three-ounce or 15-per-cent discrepancy."

#### From Metric Today Jan-Feb 2010 edition:

#### 1 Traffic Signs 2.0: A Major Upgrade for Britain's Road Signs

The UK Metric Association has published a leaflet, Traffic Signs 2.0, summarizing their recommendations for British road signs. UKMA's full report, a 68-page book titled Metric Signs Ahead, is available from the UKMA Web site (www.ukma.org.uk).

As the leaflet says, "Britain has one of the best designed and consistent systems of road signs in the world. However, two fundamental issues need to be addressed if the understanding of road signs is to be improved in the 21st century. Many current signs can only be understood by drivers who can read English, and many can only be understood by those familiar with old imperial units."

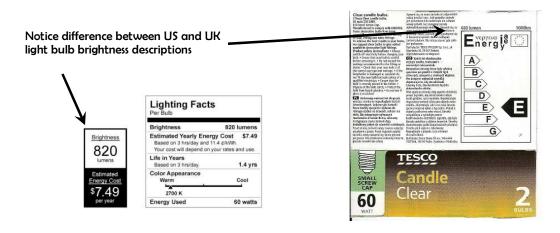
The leaflet's recommendations focus on switching to metric units on signs and using SI symbols to avoid the need for translations. For example, Wales requires bilingual signs, so a distance like "100 yards" must also be shown as "100 llath." But a distance in meters requires no translation if it uses the symbol "m." And "with an increase in international traffic, the continued use of old imperial units is no longer viable; and with the majority of UK drivers educated in the metric system, and not even being taught how many yards there are in a mile, there is now every reason to drop imperial."

For similar reasons, it also recommends using standard European road signs, which use pictograms and formats that avoid the need for text on many signs that currently use words.

#### 2 Light Bulb Labels: Think Lumens, Not Watts

The Federal Trade Commission (FTC) has proposed new labels for lamps ("light bulbs") that would, among other things, emphasize lumens rather than watts as the measure of brightness and provide a clearer description of energy usage. Currently, light bulb labels must display the light output in lumens, power consumption in watts, and estimated bulb life in hours, plus the statement, "To save energy costs, find the bulbs with the light output you need, then choose the one with the lowest watts." But consumer focus groups conducted for the FTC in 2008 found problems with the existing labels.

The biggest problem is that consumers "mistakenly understood the measure of brightness to be wattage, and this was how they selected bulbs." A separate survey in Canada found the same problem. As the FTC says, "Consumers' use of watts, and not lumens, to gauge light output worked in a market dominated by incandescent bulbs because the wattage (i.e., energy use) of incandescent lamps provides a consistent proxy for brightness (i.e., light output). For example, a '100-watt' incandescent bulb typically provides enough light for reading while a '40-watt' incandescent bulb typically provides sufficient brightness to light a hallway or utility room. However, a wattage based approach does not work in a market that includes different high efficiency bulbs because the wattage needed to attain a particular light output can differ substantially across these technologies."



### More measurement muddle!

Here is a communication with the customer services department of Screwfix regarding the mixture of Imperial and metric sizes for screws in their catalogue. Some screws just show inch sizes, others show only metric.

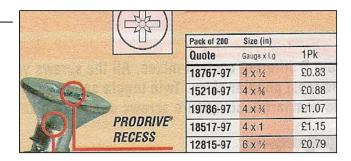
**Question**: Why are some screw sizes shown in inch gauges and others in millimetres in the same catalogue? This makes comparison between the different screws difficult.

**Answer:** The use of both metric and imperial screw sizes is to do with tradition and origin. Quicksilver and some other screws are British and Drywall screws are American, hence the imperial sizes. Nearly all the other types of woodscrews are of Continental invention, hence the metric sizes. The difference is still used in our catalogues, as customers are familiar with the different types and brands.

**Comment:** But why should users of the same catalogue have to cope with this inconsistency and use conversion charts?

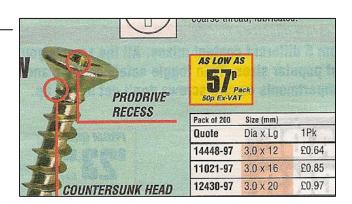


Try and compare these almost identical screws from the same catalogue!



This example shows screw diameters as a gauge with length in inches.





This example shows screw diameters and length in millimetres.

# Big Bang vs. "voluntary gradualism" - from "Metric Views"

A correspondent asks whether countries that carried out their metrication programme quickly fared better or worse than countries that have tried to do the job gradually and voluntarily.

#### Our correspondent wrotes

"I wonder if anyone has the time and resources to write an article for Metric Views on [whether] the policy of gradual metrication has been a success compared with other country's policies of doing it in less than a decade. Could we put together any objective measures by which you might measure the success of such a policy – cost, public acceptance, lack of resistance from stakeholders etc.? Just a thought."

#### Responses

The first thing to be said is that the original intention, when the policy of metrication was announced in 1965, was that the job would be completed in 10 years — that is, by 1975. However, although behind-the-scenes preparations were well advanced by 1970, including a target date for converting road signs in 1973, little had actually been achieved in practical terms by the time of the general election. Edward Heath unexpectedly won the election, and although famous for taking the UK into the EEC, he did little to encourage metrication. Indeed he allowed his Transport Minister to postpone indefinitely the conversion of road signs, and the 1972 White Paper announced that conversion would in future be voluntary and gradual: "There will be no "M-day" for metrication." (paragraph 12), No Government since then has had the commitment or political courage to set a new target date. Instead they have diverted criticism on to the EU.

This policy of "voluntary gradualism" was reaffirmed by Tony Blair in a letter to Lord Howe in 2004, and even more recently by Lord Drayson (Minister for Science) in a letter to the Chairman of UKMA last December, in which he said:

"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. Metric units are used for the majority of transactions regulated by the Weights and Measures Act 1985. The United Kingdom is already substantially metric ..... We recognise that a single system of units of measurement as a reference point is vital for fair trade and consumer protection. However, we also believe it is important that imperial units can continue to be used alongside metric ones whilst they remain more familiar for some consumers."

The sad result of this policy, as we know to our cost, is that the UK has got half way through metrication and got stuck, with little prospect of resolution without decisive intervention by the Government. So we have the "very British mess" of two systems described on UKMA's website at this link. I think it can fairly be said that the UK's approach has failed.

Other countries which commenced conversion in the late 1960s or early 1970s have tried different approaches. Australia and South Africa are examples of countries that largely completed their changeover within the 10 year timetable, whereas the USA has been even slower than the UK – albeit there is considerable unseen progress (e.g. in the American car industry). Canada has converted its road signs but encountered resistance to the changeover in retailing, putting it further ahead than the UK in some ways but further behind in others (the American influence is of course very strong). The Irish Republic is an interesting case. Initially slow like the UK, it succeeded in converting its road signs and speed limits in 2005 and has now largely completed its programme – albeit pints (imperial) linger on in pubs. One may speculate that one of the reasons why the Irish overtook the Brits is that by leaving the sterling area and later adopting the Euro, and then completing the metric changeover, they were demonstrating their independence from their former colonial masters.

Can any lessons be drawn from all this? Can we in fact, as our correspondent asked, develop any objective measures?

I think this is actually an impossible task. As far as costs are concerned, most of the costs were incurred so long ago that, even if they had been identified at the time, there are no surviving records of them. Ditto the benefits. What we can say, however, is that the UK has failed to reap

the benefits of its investments in new machine tools, retraining programmes, school textbooks etc precisely because a large proportion of the population still uses obsolete units of measurement. The "voluntary/gradual" approach means you get all the costs but not all the benefits.

The second criterion suggested by our correspondent was public acceptability.

Clearly, the UK has had a problem here – but arguably a problem that is self inflicted. Whereas in, for example, Australia, the government was careful to explain the reasons and the programme for metrication, and then implemented the changeover relatively quickly, the UK Government tried to do it by stealth and without explaining the reasons to the general public. They also tried to do the easy bits first (pharmaceuticals, building and construction) while hoping that the difficult bits (esp. retailing) would be addressed later long after the current politicians and civil servants had left office.

It is probably also true that Britain has a larger proportion of traditionalists who reject all change, especially if it appears to affect imagined icons of Britishness. Then of course came the incorrect identification of the issue with the EU, and so opposition to metrication became a metaphor for Euroscepticism. If only the thing had been done quickly, before the anti-European campaign had been cranked up, it could all have been history by the end of the 1970s.

The third suggested criterion, resistance from stakeholders, requires a little examination. The primary stakeholders (manufacturing and building industries, local authority trading standards officers, major retailers, consumer representatives) have generally supported (or at least acquiesced in) metrication. The main resistance has come from independent shopkeepers and market traders, supported or exploited by right wing political groups. In economic terms these are not all that significant, but by dint of political stunts (the so-called "metric martyrs") they have captured the interest of the media and thereby won some sympathy amongst the general public. Again it has been the failure of politicians to explain the changeover, take responsibility for their own policy and carry it through in a reasonable timescale that has allowed grievances to fester and grow.

So my response to our correspondent's question – whether countries that converted quickly to metric units fared better or worse than countries that have tried to do the job voluntarily and gradually – is that the question really answers itself. "Voluntary gradualism" merely prolongs the agony and does not work. Unfortunately, successive UK governments have refused to learn from the experience of more successful countries such as Australia (or even Ireland in respect of road signs) and, despite all warnings, have deliberately followed those policies that are least likely to succeed.

# Consultation on the Traffic Signs (Amendment) Regulations and General Directions (TSRGD) 2010

17 December 2009

I am writing to give the response of the UK Metric Association (UKMA) to the above consultation.

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

Our response is based on consultation with our members through a private internet forum and was approved by our Committee on 7 December 2009.

As requested, we have completed the questionnaire attached to the consultation document, and this is enclosed herewith. In general, we welcome the proposed amendments regarding height and width restriction signs – as far as they go – as sensible, practical and inexpensive measures that will improve road safety and reduce bridge strikes. However, we should like to make the following additional comments.

#### Government policy on completing metrication

While we appreciate that this consultation is limited to the proposed amendments to the TSRGD, we feel that it needs to be seen in the context of Government policy on measurement units generally.

Government policy since 1965 has been that the UK should - in stages - adopt metric units for an increasing range of functions, leading eventually to full metrication. I enclose copies of letters from the former Prime Minister, Tony Blair, and from the Minister for Science, Lord Drayson, setting out this policy. We would therefore have expected that the current proposal to withdraw imperial-only height and width restriction signs would be part of an overall plan to convert the UK's road signs to display metric units.

However, from comments in the media attributed to a DfT spokesperson, it appears that the DfT still believes that it can continue indefinitely to stand aside from Government policy and maintain road signs as a "stand alone" system separate from the rest of society. In doing so it is of course increasing the eventual cost of conversion. We would strongly urge the DfT in the national interest to reconsider its position on metrication and to fall in line with Government policy.

# Legality of DfT policy

Moreover we believe that the DfT's policy is also of doubtful legality as it is in conflict with the Units of Measurement Regulations 1995, which authorises the use of imperial units only for "road traffic signs, distance and speed measurement", whereas the TSRGD purports to authorise imperial units for width, height and length restrictions. Similarly, the Vienna Convention on Road Signs and Signals (as amended) does not authorise the use of imperial units on width, height and length restriction signs.

# Costs and benefits of the current proposal

The cost calculations given in the "Summary: analysis and evidence" appear speculative and uncertain and we have no specific comments.

However, we would point out that the proposal to replace imperial-only restriction signs with dual-unit signs is not the most cost-effective solution. It fails to take into account the fact that the dual unit signs themselves will eventually be replaced with metric-only signs that comply with the Vienna Convention on Road Signs and Signals.

We would therefore propose that in addition to withdrawing all imperial-only signs, changes should be made to the TSRGD to permit their replacement with metric-only signs as an alternative to dual-unit signs. This is particularly relevant in the case of directional signs that incorporate warning triangles (such as the sign illustrated below).



The withdrawal of imperial-only restriction signs will also bring benefits other than the purely monetary ones discussed in the consultation document. These include:

- Drivers will no longer be required to know the dimensions of their vehicle in two different measurement systems. Currently many car parks, garage forecourts, private roads, etc use metric-only restrictions (see pictures below), yet public roads still use imperial-only.
- As most vehicle owner's manuals give vehicle dimensions in metric-only units (see examples on our website at the following URL <a href="http://www.ukma.org.uk/Practical/motoring/default.aspx">http://www.ukma.org.uk/Practical/motoring/default.aspx</a>), knowing these dimensions will be all that is required when relating to restriction signs in the future.







• The measurement units on road signs will be more consistent with those given in the Highway Code (especially advisory stopping distances) (see <a href="http://www.direct.gov.uk/en/TravelAndTransport/Highwaycode/DG\_070304">http://www.direct.gov.uk/en/TravelAndTransport/Highwaycode/DG\_070304</a>, which gives distances in metres and feet - although the units authorised for road signs are yards)

Above all the analysis ignores the benefits that would eventually accrue to society as a whole if the UK could enjoy the advantages of a single system of measurement understood and used by everybody for all purposes. The refusal of the DfT to consider benefits outside its narrow remit has been and continues to be a major obstacle to the achievement of a single, rational system of weights and measures in the UK.

#### Length and depth warnings and restrictions

We would point out that the DfT's proposals only refer to height and width restrictions. However, the same considerations also apply to length restrictions (there are documented examples of long foreign lorries failing to negotiate tight bends and becoming stuck), depth warnings for fords, and warning signs of headroom beneath electricity cables. We cite the relevant sign references in our response to Question 11.

#### Conclusion

I hope these comments, which are being submitted by post and e-mail, are helpful. I should appreciate a copy of the Department's response in due course.

Yours sincerely Derek Pollard Secretary

# Weights and Measures (Completion of Metrication) Bill

UKMA has argued that, without decisive Government intervention, the current muddle of conflicting measurement systems will continue indefinitely. One way of speeding things up would be the passage of a "Weights and Measures (Completion of Metrication) Bill". Such a Bill might include some of the following provisions:

- (a) Declaration that metric is the primary system for all legal and official purposes unless otherwise required by international agreements (i.e. air travel, maritime transport)
- (b) Duty on all organisations in receipt of public funds (inc. Government Departments and Agencies, the Crown, local authorities, statutory bodies, schools and universities, police, BBC, contractors on publicly financed projects, charities receiving grants) to work toward becoming primarily (and eventually exclusively) metric
- (c) Power of Secretary of State to direct such public agencies (either selectively or generally) to cease using non-SI or non-SI-compatible units
- (d) Establishment of Commission to manage remaining stages of transition to primary or exclusive use of metric units
- (e) Power of Secretary of State to give directions to the Commission
- (f) Reserve power of Secretary of State to take over enforcement powers of local authorities under W & M Act where they are failing to act
- (g) Target date (say, 5 years) for ending the exemption of "road signs, distance and speed measurement" from the requirement to use non-SI units
- (h) Requirement that measurement units used in advertising and product description shall be metric, with optional supplementary indications (to be enforced against advertising agencies, estate agents, newspapers, internet service providers but not against private individuals)
- (i) Power to prohibit manufacture, import and sale of measuring instruments that show non-SI units (might need to be some exemptions, eg. for legacy components and artefacts)

UKMA is seeking a Member of Parliament (from either House) who is willing to introduce such a measure as a Private Member's Bill – probably under the "10 minute rule". It would of course have no chance of being passed – not least because the Government would oppose it – but it would be published, might attract some publicity, and would put down a marker for future reference.

Are there any MPs out there who are interested?

# NH\$ risking patients' lives with imperial scales

Six months after an official report warned of systemic negligence in medical weighing practice within the NHS, the Department of Health has failed to issue the necessary safety alert to hospital trusts to ensure that the report's recommendations are implemented.

After a series of pilot studies in 2007 found some hospital staff using inaccurate or unsuitable scales to calculate dosages of medication for patients, including small children, LACORS (the Local Authorities Coordinators of Regulatory Services) set up the National Medical Weighing Project.

#### Interim Report - August 2008

Published in August 2008, the project's interim report noted,

- "Staff do not consider scales to be medical equipment"
- "The amount of cheap bathroom scales in critical locations is astonishing"
- "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."



kilograms or decimal pounds?

Switchable scales risk medication being administered based on a readout assumed to be metric.

#### LACORS made a series of recommendations to hospital trusts, which includeds

- All scales used for medical applications should be accuracy Class III or higher.
- Any equipment that is found to be inaccurate should be immediately removed from service and either repaired or replaced.
- All scales used for medical applications should only display metric units. 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.

The report pointed out that implementing its recommendations would lead to significant improvements in patient care, and the ability for hospital trusts to demonstrate due diligence in relevant clinical negligence claims.

# Final Report - June 2009

Commenting on changes observed in hospitals that had been previously visited in 2008, the Final report of the LACORS National Medical Weighing Project 2008/9, published in June 2009, reiterated the earlier report's findings:

"The area with the most room for improvement (and potential to cause harm) is scales capable of showing metric and imperial units. While numbers have decreased, nearly one third of all scales in use are switchable. A staggering one in ten of these was set to imperial at the time of testing, despite no medicines or treatments having doses calculated in imperial units."

#### **Department of Health**

The Department of Health has a system for issuing safety bulletins and procedure updates to hospital trusts known as Estates Alerts.

In early 2008, a series of bungled contradictory estates alerts were issued by the DH concerning medical weighing; all of which failed to recommend that all new scales should be metric-only.

The latest alert, issued 19 June 2008, countered advice given in previous alerts, but promised that "further guidance will be issued later in the year". This advice has not been forthcoming.

In December 2009, the UK Weighing Federation announced that it is working with LACORS to push the Department of Health to issue the much-needed safety alert.

#### Background

Exclusively metric units are used for all medical purposes.

All drug doses are in metric, and are often calculated per patient body mass (mg/kg), or per surface area (mg/m²).

Tracking a patient's weight is not straight-forward using imperial units. e.g. Calculating 10% of 75 kg is a trivial task, but finding 10% of 12 st 9 lb is more prone to errors because it is not so simple.

Babies have been weighed in kilograms for decades, although in recent years metric readings have been dumbed down to pounds and ounces for the 'benefit' of grandparents, sometimes without the mother being informed of the original metric weight.

# Brief for 2009 UKMA style guide

UKMA is seeking a volunteer to produce an up-to-date Style Guide. Here is the brief. Please contact a member of the committee if you wish to have a go!

Title

"Measurement Units Style Guide"

#### **Purpose**

The purpose of the style guide is to explain and demonstrate good practice in the usage of measurement units, especially metric units, in written and spoken English in the UK.

#### **Targets**

The primary target is the printed and broadcast media, together with publishers of books, magazines and reference works. The particular circumstances of these groups need to be taken into account (e.g. space limitations, educational standard or reading age of users). It therefore includes journalists, radio/tv presenters, DJs, script writers, editors and subeditors.

However it is hoped that the Guide will be useful to others, especially teachers, government and local government officials, cookery writers, advertisers, politicians, university lecturers, estate agents, travel agents, sports commentators and greengrocers – indeed, anyone who communicates in English with the general public.

#### Sources

BIPM brochure (i.e. the rules for SI) (see http://www.bipm.org/en/si/si\_brochure/)
NIST (see http://ts.nist.gov/WeightsAndMeasures/Metric/metrsty3.cfm)

#### **Format**

The Guide needs to be attractively produced and in a format that is likely to be retained and used by the target user, rather than filed away or discarded. A durable glossy cover, with colour, is essential. Possibly it could include illustrations where useful. Whether it should be A4 or a different size partly depends on how it is to be distributed (see next section).

#### Distribution

We need to establish whether there is any chance of the Guide being distributed through booksellers or newsagents, and, if so, what format is suitable (probably NOT A4). We would probably send free hard copy to some key targets, e.g. style guide editors of major newspapers, but otherwise rely on e-mailshots accompanied by free download from our website.

#### Some possible section headings and content (not necessarily in this order)

#### Contents page

Foreword (by somebody famous?)

Introduction – should explain the need for the guide – i.e. current poor standards, setting a bad example, copied by others, hence standards don't improve

Reasons (briefly) for preferring metric usage as default – but explain exceptions – e.g. some aviation, supplementary indication at first mention. Reasons for avoiding converting foreign or scientific material to imperial. Stress importance of using metric units correctly.

Disclaimer – "pound of flesh", "Royal Mile", "fathom out" – expressions will remain

Main SI rules – e.g. no pluralisation of symbols, space between number and unit symbol (but possibly allow exceptions), when to use upper case and when to avoid it, no full stops.

Explain difference between symbols and abbreviations, and why it is important. Avoid use of incorrect or ambiguous symbols – e.g. m for mile or million, min for minimum, C for °C.

Avoidance of spurious accuracy. Significant figures.

Examples of good and bad usage.

There may possibly a case for separate sections on weather, cooking, clothing and footwear, travel, etc – to be debated. Depends how it would fit into overall structure.

Other style guides and measurement units policies (or non-policies) – e.g. BBC, Economist, Times, Guardian, tabloids.

Could/should it be linked to a "clarity award"?

Schedule of measurement units (NB no conversions!)

Some controversies – e.g. calories, HP, BTUs and joules; metre and meter; L and I; KILometre and kilOMetre.

Relationship between units – e.g. NIST diagram and simplified diagram at http://www.ukma.org.uk/Whatis/Sichart.aspx.

References

**Bibliography**