

# The Yardstick

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## **Metrication shambles**

Compulsory metrication is now in total disarray. The Government had been so intent on satisfying the EU that UK metrication was duly completed, by reaching 1st January 2000 without arousing public awareness or media interest, that it failed to prepare any strategy for enforcement. The EU having issued the Directives, while leaving each Member State to devise means of implementation, Westminster simply imposed the regulations nationally but made local authorities responsible for ensuring compliance.

County and Borough Councils resent being left "hanging out to dry". They have no incentive to enforce regulations that are unpopular with shopkeepers and customers alike, especially with the prospect of local elections on 4th May! So Trading Standards Officers also feel betrayed, having to coerce traders into converting, yet aware that their Council employers will not prosecute. The Weighing Machine Manufacturers Federation is equally aggrieved by lack of support from central government, its members holding over 25,000 machines in stock for which orders have dried up or been cancelled.

Official confidence is further shaken by media interest - all the more intense and sympathetic to the rebels because of government's policy of secrecy throughout these past years - as well as by the campaign of opposition, which is successfully encouraging growing resistance from retailers. Finally, it has become clear that the regulations are in fact unlawful, so that any prosecution promoted as a test case would fail and thereby send the Government back to the drawing board. That could lead to a possible "group action" for compensation against the Government by retailers who had been forced unnecessarily to incur the expense of going metric.

The issue has to be resolved. Otherwise, the regulations become a "dead letter". A Council should bring a prosecution in order to lose it and leave the Government to face the consequences!

*AGM & Conference on 3 June: speakers include  
Geoffrey Cox on "demetrication" - see p. 16*

## Public hostile to compulsory metrication

BWMA issued a press release on 20 January headed, "**Public hostile to new compulsory metrication law**", announcing the results of a nationwide public opinion survey, carried out from 14 to 16 January by BMRB International, the independent market research company and organised by Warwick Cairns, a Director of Abbott Mead Vickers BBDO, the leading advertising agency.

This showed that over two-thirds (67%) of the UK population disagree with compulsory metrication – less than one-sixth (16%) supporting the legislation to any degree and only 7% strongly supporting it – while even a majority (57%) of the youngest age-group (aged 15-24) disagree, as do 65% of the 25-34 year-olds. Women are especially hostile, 71% opposing it.

The BWMA message was that, "This survey confirms that the growing number of traders defying the new metrication law are simply giving their customers what they want."

### Resolution to be moved in Parliament

As we go to press, news has arrived of a motion to be moved in the House of Commons on 5 April under the "Ten-Minute Rule" by the Conservative MP for Aylesbury, David Lidington, in the following terms:

"That leave be given to bring in a Bill to make the use of imperial weights and measures no longer subject to proceedings for a criminal offence."

We shall certainly report on progress of this initiative at our Conference on 3 June.

## Metric regulations are unlawful

Some 1,350 newspapers, trade journals, radio and TV stations were sent an individually addressed letter from our Research Officer, John Gardner, dated 25 January and headed, *Traders can still use lb/oz – legally! Conversion to metric not necessary*. Thanks to Brian Mooney for his great help with this.

Highlighting the legal opinion by Michael Shrimpton, that the metric regulations are unlawful and unenforceable, this letter was published and commented upon widely throughout the country and abroad.

Another press release on 9 February, again with very wide distribution courtesy of Brian Mooney, was headed, *European metrication law – a paper tiger?* It featured the ITV Teletext poll on 4 February in which no less than 97% of those replying to the question, "Do you support the new European law enforcing metric weights?" voted "No".

It also identified half-a-dozen prominent traders, "a small sample of the thousands who are determined to defy an illegal law and continue to give the vast majority of their customers what they want," and added that, "unless the authorities bring a test case we have to conclude that the new law is a paper tiger."

Chris Howell of LACOTS, the co-ordinating body for local authorities, was reported in the *Mail on Sunday* of 5 March as believing, "that any prosecution would at least be a long time coming," and was quoted as saying: "Legal counsel is never going to be quick and if the Government has got the law wrong, then they will have to draft new legislation."

That is the first official admission that the regulations could indeed be unenforceable. The DTI realise this, of course, which is probably why no traders have been prosecuted.

Any lingering pretence that the regulations are lawful is dispelled by the letter dated 24 January

from the DTI to LACOTS which claims that, "the vast majority of lawyers believe that so long as the Act is on the statute book it has the effect that Community law, and any legislation that implements Community law, prevails even over subsequent primary legislation. The Department therefore considers that the 1994 legislation is valid. I would be grateful if you would communicate the Department's view to the local authorities."

But was that letter signed by a competent legal authority? No, it was merely from a civil servant at the DTI, with no legal qualifications, who had been given the impossible task of drafting something that sounded plausible, pending a proper resolution of the problem that the Government has got itself into. Note that no evidence is available to support the ludicrous claim concerning "the vast majority of lawyers," which is a sheer fabrication.

Did the DTI ask the Law Society and Bar Council to conduct an opinion poll of all their members? Will they publish the figures? In any event, all that matters is whether or not Mr Shrimpton is right, and no lawyer of any standing has been found to argue against him.

It is disgraceful that the case for continuing to implement the policy of compulsory metrication now rests on this flimsy, deceitful letter which insults the intelligence of every solicitor in local government.

The indisputable fact is that the 1994 metric regulations are "secondary legislation," which must derive their authority from primary legislation, as they do from the 1972 European Communities Act. However, it is a fundamental rule that a later Act supersedes an earlier one, so that authority was overtaken by the consolidating Weights and Measures Act of 1985, which expressly authorises the use of both imperial and metric units as alternatives (according them equal status), and the 1985

legislation remain in force until Parliament amends it. Moreover, compulsory metrication is unlawful on several other grounds besides.

### Compensation for metric burden?

Tony Bennett, a qualified solicitor who is Political Assistant to Jeffrey Titford MEP, wrote on 21 February to the Cornwall County Trading Standards Officers in defence of a Camelford greengrocer, stating, *inter alia*:

"Please also be advised that following the collapse of the prosecution under the government's 'beef on the bone' regulations, which were accepted as being invalid, large claims are being made by beef farmers, meat traders and others whose business was seriously affected by invalid regulations. Please be advised that there may well be many claims from shopkeepers and traders in Cornwall against your Authority if it transpires that you have been incorrectly advising them to convert to metric when the regulations purporting to require to do so are invalid."

Dozens of traders have telephoned us to ask whether, if the 1994 Regulations are declared unlawful, a "group action" could be raised for compensation from the government in aid of all those who, like the callers, were informed by their local Trading Standards Officers that they **must** purchase expensive new weighing equipment and accordingly, very reluctantly, did so; and, furthermore, whether that compensation could cover, in addition, loss of business resulting from conversion — business lost to competitors who had **not** converted!

For example, Peter Ellis, Director of Network Seafoods Ltd of Newhaven, wrote to us on 25 February, to ask whether, "if at some time in the future a case is presented over this metric issue and lost by the government, will people such as myself be able to claim compensation for the unnecessary purchase of metric equipment in order to comply with the bullying tactics of the Trading Standards Office?"

It is worth quoting from copies of two splendid letters that Mr Ellis kindly enclosed. One, addressed to the Trading Standards Office in Eastbourne, stated: "I refer to correspondence that passed between us during 1998 after a visit to our premises by inspectors from your office who subsequently reported me for not trading my goods in the metric system. You will no doubt recall, some short time later I had complied with your wishes and reluctantly spent several thousand pounds on the purchase of new weighing equipment and costly conversion of some of the existing.

This expenditure and compliance was made under the threat of 'draconian' fines and possible imprisonment by your department if I did not comply. I have spent over 20 years building up my business and an excellent rapport with my customers who have made it quite clear that they strongly

resent and object to the metric method of weights and measures being forced upon them.

I have therefore decided that my customers are more important than another heap of EU-inspired bureaucratic rubbish piled upon this once great nation against the wish of the majority. You are therefore notified that on the 7th of February 2000 I converted the sale of fresh seafood produce back to the imperial system. We now sell in pounds and ounces and this has been much appreciated by all who have patronised my business along with new customers alike. You will probably regard this as a disruptive move against your department — that is for you to decide — but in the meantime my customers come first. All the time I have happy customers I will be able to pay my Business Rates and Revenue Taxes when due." A reply is awaited!

The other letter was addressed to the local *Evening Argus* newspaper, with which he enclosed copy of the foregoing letter to the TSO, commenting: "It has become abundantly clear to me that 'Joe Public' has a very poor understanding (or wish to understand) the weights, measures and prices relative to the metric system. It seems that only good nature and the high levels of tolerance of the British public have allowed this EU Directive to be put upon us. A huge proportion of my customers confess to just paying up and hoping for the best as to whether they got good value for money. For example, my sales of fresh salmon dropped dramatically when offered at £3.65/kg. We are well known as one of the best-value sites available for the purchase of seafood, and unfamiliar prices created uncertainty and discomfort amongst my customer base. It has been like a breath of fresh air since cod fillet is no longer £6.50/kg and this has been greatly appreciated by all we have served since our re-adoption of the imperial system. I am not a rebellious person by nature and have obediently observed and complied with all EU Directives as imposed upon my industry, but this time I feel that enough is enough..."

The last of the following three questions submitted on 23 February by another supporter to Hackney Borough Council again raised the potential question of compensation: 1. Is the Council aware of the expert Legal Opinion of Michael Shrimpton, that the enforced metrication Directives are void and illegal? 2. What measures are the Council taking to enforce the dubious metrication Directive and how much are these measures going to cost? 3. What financial provision has the Council made for the compensation of traders who successfully appeal against the potentially illegal metrication Directive?

To which the answers were: 1. They were aware of the Opinion; 2. The Council had no plans for prosecuting offenders. Cautions will be handed out to those who transgress and the Council may, on advice from the Home Office [they meant the DTI], prosecute those who continue to offend — no costings were given; 3. No provision has been made.

Our friend comments: "Hackney has within its bounds the Ridley Road market, which was what the Albert Square market was based on in *East Enders*. I've wandered down there and seen only two out of about twenty fruit & veg stalls marking their produce in metric weights."

We have had to advise, of course, that the question of a "group action" could not arise until a test case in Court had resulted in the desired decision, which pre-supposed an appropriate prosecution, of which there was still no sign. But the question remains, whether the Government have thought through the possibly disastrous consequences – financial as well as political – of an unsuccessful prosecution?

### Westminster queries the law

Bill Butterfield, the City of Westminster's Head of Trading Standards, had received from Tony Bennett a copy of Michael Shrimpton's Opinion and replied on 13 March, saying:

"It is clear from your own letter, and the contents of Leamed Counsel's Opinion, that the view of Government and of some lawyers as regards this matter is different. I have, therefore, referred the bundle of documents to the City Solicitor for his opinion and guidance. I would ask you to accept this letter as a holding reply until such time as that guidance is received. I do not propose to take any enforcement actions against any trader using imperial rather than metric units until I am sure of the legal position ... When a substantive reply to your letter can be provided, I will ensure you are given information about that part of the process."

At last, a very senior Trading Standards Officer is sensible enough to refer the question of the legality of the metric regulations to his own Council's Solicitor for an expert opinion, and is also conscientious enough to promise in advance that that opinion will be made public. This could not happen in a more appropriate or influential local authority than the City of Westminster.

We will report the outcome at our Conference on 3 June: it may well deserve a press release.

## Imperial Traders' Register

*The Imperial Traders' Register* gives details, with their permission, of the prominent rebel retailers. Well over a hundred traders are included, representing many different trades, from blinds and fabrics to picture frames and petrol pumps, from a pet shop to a tomato grower, and from every part of the British Isles. David Delaney has been collaborating closely with Tony Bennett in compiling the register.

It is kept up to date on an Internet site, which welcomes links from other sites and as well as printing of copies for distribution. It was commended by Christopher Booker in *The Sunday Telegraph* on 27 February, who also reported further on the crucial case of Mandy and David Stephens, the Leigh-on-Sea butchers, following the Southend Council meeting on the 24th at which it was decided to take no action against them, despite an Infringement Notice having been served on them on 6 January, allowing 28 days' grace which had expired on 3 February.

### Not a single prosecution

As we go to press, not a single prosecution has been initiated by any Local Authority anywhere. Indeed, several celebrated rebels, such as Bruce Robertson and José O'Ware, have in effect been told to stop pestering their Trading Standards Officers, who have more important matters to deal with!

Another barrister, Neil Addison, practising in Newcastle upon Tyne, has pointed to a further reason why Trading Standards Officers may be breaking the law. Section 241 of the Trade Union and Labour

Relations (Consolidation) Act 1992 states that it is an offence to compel any person to do something which that person is not legally obliged to do. This aspect is currently being investigated.

Meanwhile, there are already several distinct and equally compelling grounds for holding the metric regulations unlawful (in addition to Michael Shrimpton's conclusive line of attack) as announced in our press notice released on 29 February, headed *Metrication law – Government wriggles on the hook*.

If no local authority dares to prosecute, BWMA will have the satisfaction of declaring to the whole country that the regulations are a "dead letter" and may be safely ignored. However, that is not good enough, because the regulations would still remain nominally in force – Britain would remain officially a completely metricated country – and the authorities would continue to apply pressure everywhere, to do everything possible, short of prosecution, in order to extend metrication.

But there is another possibility – which is now also being investigated – of bringing about a test case in a court of law, for the purpose of exposing the unlawful nature of the regulations, even in the absence of any prosecution. That would be by applying for an injunction against any of the Councils that have served an Infringement Notice upon a defiant retailer, in which case the injunction would be granted if the judge held that the regulations (with which the Notice required the retailer to comply) were unlawful. All affected traders could then have grounds to claim damages. By the time you read this, of course, the situation might have become clearer.

Councillor Austin Spreadbury of the London borough of Enfield, a BWMA member, received a written reply from the relevant Committee Chairman, to his question on metric enforcement, which declared – as have many Local Authorities – that the Council would “give priority to complaints where there is evidence of a trader suffering loss as a result of a competitor continuing to trade in imperial units.”

To give another example, Southend Council’s Chief Trading Standards Officer, Colin Gabell, stated on 12 January that David Stephens the Leigh-on-Sea butcher, “has got an unfair advantage over his competitors.”

So it appears that the only reason that might compel a Council to prosecute is if a trader commits the offence of giving customers what they want by continuing to serve them in imperial measures, thereby gaining more business at the expense of competitors who are losing business as a consequence of converting to metric, and who complain accordingly. The universal presumption among local authorities that imperial measures are far more popular is the justification for banning them! Obviously, this official self-contradiction would be exposed in any prosecution brought to court, while the media would have a field day!

### **A quarter of weighing machines still use pounds and ounces**

The UK Weighing Federation has announced that as at the end of February, some 122,000 weighing machines (scales) had been replaced or converted to metric, comprising 63,000 owned by supermarkets and other multiple retailers and 37,000 owned by independent traders; leaving another 38,000 machines still measuring in imperial units.

The significant facts are firstly that these 38,000 are all in the independent sector (supermarkets and other multiple retailers having gone completely

metric) and secondly that this figure means that as many as 40% of all private shopkeepers - 2 out of every 3 - continue to trade in imperial units, which is certainly more than we had dared to hope.

Let us trust that this proportion continues to rise as the number who decide to convert back to imperial, in order to regain lost business, exceeds those who succumb to bullying by the authorities. The latest figures are confirmed in a letter to Jeffrey Titford MEP dated 17 March from one of the leading weighing machine manufacturers, that goes on to say:

“However, we are now getting stubborn resistance from our remaining customers largely due to the adverse publicity and campaigns run by pressure groups. We are also getting complaints from some of those customers we have converted that our advice was wrong and we have put them to unnecessary expense! Our trade association, The UK Weighing Federation, has been in touch with the DTI to obtain clarification and to suggest some Government PR to counter these campaigns. Unfortunately, we can get no satisfactory reply; it appears that the major concern is about negative headlines and the creation of ‘metric martyrs’! ... This situation is becoming farcical and as people try to implement the Government’s legislation our reputation is being damaged.

A financial consequence is that having stocked up on metric scales and conversion kits to meet the expected demand solely initiated by metric harmonisation with Europe this stock remains very much unsold with capital unnecessarily tied up. The purpose of this letter is to draw the situation to your attention and to ask for your help in lobbying the Government. We need them to issue clear and unequivocal statements on what the legal position is and what action will be taken against retailers who do not comply with the law.”

Jeffrey Titford is unlikely to oblige! This letter perfectly illustrates the current metrication shambles.

## **BWMA and campaign news**

### **Four new Honorary Members**

The latest noteworthy people who have kindly agreed to become honorary members of BWMA are Simon Heffer, George MacDonald Fraser, James Le Fanu and J.K. Rowling.

The distinguished author and journalist, **Simon Heffer**, continues to give us valuable support in the *Daily Mail*. He wrote to Bill Peters: “Of course I am delighted to be asked to be an honorary member of your association. I have never properly recovered from the decimalisation of the currency and have, as you know, often railed in my columns against the obscenity and cultural absurdity of metrication. You will let me know if there is anything more practical I can do to help.”

He added the following note: “I recall the words, spoken in another context, of my late friend J. Enoch Powell [of whom he has written a notable biography]: ‘Too often today people are ready to tell us “this is not possible, that is not possible.” I say: whatever the true interest of our country calls for is always possible.’”

**George MacDonald Fraser OBE** is best known for his *Flashman* series of novels. He served in the Army 1943-47, rising to Lieutenant in the Gordon Highlanders, then pursued a varied career in journalism in England, Canada and Scotland, where he was deputy editor of the *Glasgow Herald*. He has also written many film screenplays. His heartening advice to BWMA: “Splendid – Keep it up!”

**Dr James Le Fanu** is widely known through his TV appearances and regular weekly columns in the *Daily* and *Sunday Telegraph*. In a recent *In Sickness and in Health* article he wrote:

"There is thus [for counting] an obvious rationale for the decimal system, based on our ready familiarity with the number of fingers and toes we possess. The same practical arguments apply to the traditional imperial system of expressing lengths in terms of inches, feet and yards, each of which is based on an approximation of the length of part of the body; the inch being the length of the terminal phalanx of the thumb, a foot being a foot and ...

By contrast, the metric system is an entirely arbitrary method of measurement, instigated by the Utopian radicals of the French Revolution, and bears no relationship at all to the parameters of the human body ... the metric system is also a dismal failure in practical terms ... the arguments in favour of metrication, just as for the changeover from Fahrenheit to Celsius, are entirely spurious. As human beings, we need a practical, workable method for estimating the world around us, and the best way of doing so is by referring to something with which we are all familiar - ourselves."

Dr Le Fanu told Bill Peters that he finds *The Yardstick* most interesting and that "I am only too pleased to support you in your good work."

Here are two quotations from a children's book, published in 1997: "Your father, on the other hand, favoured a mahogany wand. Eleven inches. Pliable. A little more power and excellent for transfiguration. Well, I say your father favoured it - it's really the wand that chooses the wizard, of course."

"Come back boy!" she shouted, but Neville was rising straight up like a cork shot out of a bottle - twelve feet - twenty feet. Harry saw his scared white face look down at the ground falling away, saw him gasp, slip sideways off the broom and ..."

The book is *Harry Potter and the Philosopher's Stone*, the first of a now immensely popular series of children's books (with world-wide sales exceeding 30 million) by the celebrated writer, **J.K. Rowling**. In all her Harry Potter books, measurements are in traditional units.

Roald Dahl, the most successful children's author of the previous generation, whose books are still very widely read, always used traditional measurements. The works of both writers deny the official pretence that children cannot relate to traditional units.

### **Jennifer Paterson - R.I.P.**

Members will be aware of the passing of Jennifer Paterson, a BWMA Honorary Member. Latterly best known as one of the "Two Fat Ladies", she had long before been an eminent cook and cookery writer. We pay tribute to an endearingly idiosyncratic individual and gratefully acknowledge the value of her support.

### **"English spoken here"**

Our new notice has been devised first and foremost for shopkeepers trading in traditional units.

Though buoyed by a tide of public goodwill and gratitude, these loyal traders have to face official intimidation and menaces individually on their own. Now they can share a "cap badge," a tangible moral support that we hope will become an increasingly evident and popular symbol, certain to attract more custom wherever it is displayed. Already the sticker has been distributed to well over one hundred traders - our "front line" - and will also be sent to sympathetic public figures.



British Weights & Measures Association

The notice (illustrated here) comes in two forms: one sticky on the front, for transparent surfaces such as windows, windscreens, etc, and the other sticky on the back, for opaque surfaces. Of self-adhesive plastic, about five inches in diameter, it is vividly white against a deep blue.

The notice is already for sale at several outlets and we hope that BWMA Members will avail themselves of several, to use and/or give to friends and local traders to display.

The minimum donation, if ordering only one, is 50p, payable in loose postage stamps, accompanied by a stamped addressed envelope (over 5" square, of course). If ordering several, please send a cheque for at least £1 for 2, £2 for 4, etc, to include postage. Please be sure to specify which type you require, for *transparent* or *opaque* surfaces. Orders by post to BWMA, Dept. ESH, Maxgate, Burgh Hill, Etchingham, Sussex TN19 7PE. They will be available at the AGM on 3 June, if not sold out by then!

### **Area Representatives**

Edward Spalton of The Old Stable Yard, Chester Green, Derby, DE1 3RU (tel. 01332 332940) has become the BWMA Representative for Derbyshire. He has already secured valuable publicity for our campaign by getting letters published in local newspapers - which, readers will recall, is all that Area Representatives volunteer to do. Don Whiteley (Milton Keynes), Catherine Jeffs (West Yorkshire), John Tomlin (South Lancashire) and Rosemary Wickenden (East Sussex) are all busy doing likewise.

Two other stalwarts deserve special mention. Joe Hand (West Surrey) regularly bombards not only the local press but also such bodies as the National Trust (as all Members should do!) and English Heritage, as well as the supermarket company house magazines and the numerous societies dedicated to preservation or conservation of anything – e.g. steam railways, real ale, etc – all of which should be sympathetic to our cause.

Derek Norman (Hunts and Cambs) is equally industrious, and has also recently arranged for the production of a beautiful sterling silver “pound weight” lapel badge (for men) and pendant and chain (for women) which are now for sale at a price of £10 each (inc. p&p). He will bring a supply to our Conference on 3 June, but they can be ordered from him by telephoning 01480 435837. Please note that, while designed to support our cause, they are not produced by or for the benefit of BWMA.

### **Beware of imitations!**

A friend in the USA sent literature from the Bi-Weekly Mortgage Association (“the only independent organization of mortgage reduction consultants in the US”) which, unsurprisingly, uses the same initials (BWMA) as ourselves. Their Internet site address is [www.bwma.com](http://www.bwma.com). We don’t know how long they have been established.

### **Henric Kalmeter from Sweden**

Justin Brooke writes from Marazion in Cornwall: “I recently translated part of the Journal of Henric Kalmeter (1693-1750), which is now in the hands of my publishers. Kalmeter was a Swede with a mining background who spent four years in the UK and who visited the south-west in the autumn of 1724, penetrating as far as St Just in Penwith. He saw everything in terms of weights and measures, and later became Head of Statistics in the Department of Commerce in Stockholm.

My Swedish friends tell me that prior to the introduction of metric measures the trade of much of western Europe was conducted entirely in what we now call imperial measures, which Kalmeter uses, linking the Swedish measure of a tunna (barrel) to a Winchester chaldron of coal – about 8 tunnas or slightly over 93 imperial gallons. He also uses yards, feet, inches, miles, acres, bushels, hogsheads, fathoms, loads (100 cubic feet, the so-called St Petersburg standard, which I believe is still in use in the Baltic and elsewhere).

He uses several other measures confined to tin mining and smelting, such as the sack, of which 100 made 10 tons of tin ore, horse-loads (2 sacks), and ingot of tin metal, known as a block – about 300 lbs. These all reflect the fact that at the time there were few machines for weighing, so measures in these industries had to be by volume.”

Our Director passed a copy of this letter to Sir Rowland Whitehead, an Honorary Member, who is President of the Institute of Translation and Interpreting. He then wrote directly to Mr Brooke,

mentioning that he is married to a Norwegian, commenting on the persistent colloquial use of indigenous measures in Scandinavia, and concluding: “And of course the building trades the world over, as well as food traders, all use human-based measurements amongst themselves whatever the authorities say ... I shall look forward to reading your book.”

### **Thank you, John Humphrys**

Our Director wrote privately to the great John Humphrys, who was suspected – from occasional comments during his early morning *Today* broadcasts – of sympathy for our cause. He has very kindly replied in person, on his official *BBC News – The Today Programme* letterhead, saying: “Dear Mr Linacre, Many thanks for sending me the material. Most instructive. Everyone should read it. Best wishes to you. Yours sincerely ...”

### **Thank you, Max Bygraves**

The great entertainer, Max Bygraves, sent the following hand-written letter to David Stephens on 4 February: “Three cheers for your stand against the EU – I am with you 100%. It’s a pity I am off to Australia on Tuesday next where we have to do most things metrically – and ‘it ain’t arf ard!’ – especially as, like you, I got my education from the LCC! After my tour of Australia if your crusade is still on count me in, to either carry a banner or be your cell mate in prison. I will be back in April. You have the admiration of so many who want to remain ‘English’ so don’t flinch, Dave. Most sincerely ...”

### **Thanks again, Delia Smith**

We have had occasion earlier to publish our appreciation of Delia Smith’s continued use of imperial units on TV and her frequently expressed preference for them. It is certainly worth reporting, however, that she kindly wrote as follows on 28 February to Mrs R M Wickenden, who is one of our most diligent correspondents: “I too am frustrated by the new metric weights being forced on us by European legislation. I will *always* do my best to endeavour that imperial measurements will be printed in my recipes as an alternative.”

### **Challenging officialdom**

Vivian Linacre had two letters published, copies of which are proving useful generally. One appeared in the *Western Morning News* on 10 February under the huge headline “My £1,000 metric wager with MEP”, and read as follows.

“I, personally, bet Giles Chichester MEP £1,000 that he cannot produce any evidence to prove his claim (WMN, February 2) that a UK government adopted a policy of compulsory metrication, enforced by criminal law, ‘long before we joined the European Union.’ If he cannot, then his cheque for that sum should be payable to British Weights and Measures Association, to help our campaign to restore freedom of choice, which is what the vast majority of the

people want. Does he accept the wager, or will he run away from the issue?

Contrary to his metric myths, the facts are that:

1. No political party ever mentioned compulsory metrication in its general election manifesto.
2. Four Prime Ministers (Heath, Wilson, Callaghan and Thatcher) all pledged that metrication would always be voluntary.
3. The Metrication Board was scrapped in 1980.
4. The consolidating Weights and Measures Act of 1985 fully authorized all imperial units.
5. Compulsory metrication was imposed solely in compliance with EC Directives.
6. It will prove unenforceable, not only because the growing army of defiant retailers cannot all be prosecuted but also because the first prosecution to be tried as a test case will show that the whole process of compulsory metrication is itself illegal, on several distinct grounds of constitutional and contract law.

Mr Chichester's claiming credit for having won a concession, permitting the continued use of imperial units alongside but subordinate to the metric, is bogus as well as insulting. Such use is purely discretionary, of no concern to the authorities, and therefore amounts to no more than provision of additional information for which no permission was required in the first place. Apparently he would willingly see that basic freedom of information withdrawn in 2009.

Finally, for the record, the British Weights and Measures Association is strictly non-political, drawing support from all sections and interests, even including members of that most Euro-federalist party, the Conservatives!"

Our Director's other letter appeared in the *Cornish Times* on 25 February, was headed "Sham regulations on metrication," and read: "Not one person qualified to do so - neither a practising Barrister nor any Government counsel - has attempted to dispute Michael Shrimpton's conclusive opinion (published in a 27-page document of which copies are freely available) that the metric regulations are unlawful and unenforceable.

Therefore the claim by P G Crewdson, Cornwall County Trading Standards Officer (letter, Feb 18) that this opinion 'is at odds with those of Government lawyers' is untrue. I defy him to produce an opinion, by a competent legal authority, that can prove Mr Shrimpton wrong. If he cannot, then Mr Crewdson must apologize for accusing the British Weights and Measures Association of 'a clear incitement to break the law,' since it is in fact his own department's activities that are unlawful in seeking to implement these sham regulations.

For the same reason, not one Council anywhere in Britain has yet dared to undertake a prosecution of any of the thousands of honest traders who continue to satisfy their customers by serving them in imperial measures. For the first appropriate prosecution would be treated as a test case to prove that the whole process of compulsory metrication was unlawful and must be repealed. Will Mr Crewdson

urge the County Council to put it to the test in a court of law? If not, will he admit that the regulations are a 'dead letter' and may be safely ignored?"

It was to the same Mr Crewdson that Bruce Robertson had written on 22 December, with copies to the corresponding Devon official, the Chief Executives of both Counties, the local Ward Councillors, Dr Kim Howells (the responsible Trade and Industry Minister), William Hague and Patrick Nicholls MP, Nigel Farage MEP, Michael Shrimpton (barrister), Christopher Booker (*Sunday Telegraph*), Simon Heffer (*Daily Mail*) and Chris Ferris (*Western Morning News*) - stating, under the subject heading *Metrication Legislation 1 January 2000*:

"It is regrettable that it appears we may be in conflict with yourselves following the unlawful imposition of these iniquitous regulations ... I will not be a party to what in effect is nothing short of a consumer deception measure and as such I must serve notice upon you that the Trago Mills stores will continue to use customary units after 1 January and for as long as the overwhelming majority of our shoppers wish us to do so. I will not rehearse the whole sorry history of this 30-year saga as I suspect it is well known to the Council albeit you may only be familiar with the litany of lies; I am enclosing a more honest interpretation of these events - *The Great Gram Scam* - as it may be helpful to yourselves.

Metrication is neither necessary nor welcome. It is an abomination to our culture and forms only a small part of our language which in this sovereign democracy we should be free to choose whether to use or not at will. It has nothing to do with consumer protection and ... will be a consumer deception measure as nothing is more fundamental to a fair transaction than the customer understanding precisely what they are getting for their money. It seems quite preposterous and not a little ironic that your office is now to be tasked with imposing precisely this upon honest traders who simply want to go about their normal business in a sensible, proper and straightforward manner.

I feel, therefore, that it is your bounden duty to prosecute the law with vigour and, having established the necessary proof of evidence, commence proceedings against ourselves at the earliest possible date. I see this as the only way the matter may be highlighted and this wrongful act of gross hypocrisy addressed firstly by the Courts and ultimately by the Government when a warrant is issued for my arrest, as surely it will have to be ... Consumers and shopkeepers alike have suffered not less than a decade of deceit, courtesy of the present and last Governments and, as such, it is my intention that they should be broken upon the wheel of their own making.

I recognise that this may place some strain upon the excellent working relationship we have with your local offices but I am hopeful that any animosity may be avoided: it is a matter of principle and my complaint lies with others than yourselves."



### More good news

Francis Debrabandere of LANO Carpets in Harelbeke, Belgium, wrote on 10 January to Bruce Robertson at Trago Mills:

"I would like to confirm that the sales team will continue to quote you prices in £/sq.yd and oz/sq.yd (approx.). I am in this business because I like dealing with the British. If they lose their 'English' ways, it will take half the fun out of my job, and I will go back to metal wire construction."

Barry Jones of the Rustic Crafts Workshop in Rye, Sussex, wrote on 6 February: "I thought you might like to know that I only work in Imperial measurements and that local, long-established hardwood sawmills around here still work out measurements and cubic feet in Imperial units ..."

John Bowden of Totnes & South Hams Tyre Services in Devon wrote on 20 January: "Here is a thought for the pot. Hans or Carl, a German fellow member of the European Union, purchases his BMW and it is safely delivered. The tyres of his thoroughly German-built car are a poser for the metric boffins to conjure with. Let us look at the BMW 5 series 5401, tyre size 235/45ZR17:

235 = millimetres width in the tread area;

45 = % height of sidewall in relation to tread width;

17 = diameter in **inches** of wheel made in Germany.

This may appear to read as ridiculous, but the same formula applies to practically every vehicle tyre made throughout the known world including trucks, buses, earthmovers, agricultural tractors and combine harvesters, and in particular all of the cars made by such eminent manufacturers from across the Channel as BMW, Mercedes Benz, Peugeot, Renault, Fiat, Alfa Romeo and many more. If in future we are not permitted to sell in square yards, pounds or ounces by some directive issued from Brussels, how can the above constitute common sense?"

Alan Damper wrote to "eurofaq" (an Internet discussion forum) on 10 February: "I was really pleased on a visit to my local Tesco to see that the only concession to metrication was the sign 'All produce is now weighed in metric'. On much larger signs above the fruit and veg all weights were in pounds with NO metric equivalent. One in particular read: 'Save 16p per lb - loose grade 1 parsnips - only 39p per lb'. On most shelf tags the 'per lb' price was the most dominant with the 'per kg' equivalent on some at least 6 times smaller and right at the bottom - unreadable by most without squinting. As there are other large signs proclaiming the benefits of British food on Union flag backgrounds it seems that someone in Tesco is not too supportive of the EU. Is this a national Tesco trend?"

There too Stuart Notholt wrote on 22 January: "I'm delighted to report that the market traders in Braintree were flagrantly and repeatedly breaking the law this morning. Even the one 'dual pricer' had his prices for pounds above those for kilos. Passers-by watched in total indifference as a local copper strolled through and did nothing whatsoever to halt

the frenzied orgy of criminality in his midst. Where do they recruit policemen these days? It's no wonder the crime figures are rocketing. Appropriately enough, Braintree was granted its market by the late King John, he of Magna Carta fame."

### More star awards

Shaun Ferguson recommends a Gold Star to Thompson & Morgan for their new seed catalogue, available at garden centres, which shows exclusively traditional measures and Fahrenheit temperatures.

Likewise, Roger Dykes recommends a Gold Star to Elliott's of Chesterfield for their new garden equipment mail-order catalogue which is wholly metric-free; and a Silver Star to Norfolk Lavender Ltd for their new catalogue which shows imperial first with supplementary metric; and a Bronze Star to the AA whose new handbook pleasingly shows miles on maps and quotes *mph* and *mpg* throughout.

The irrepressible Roger advises that, since miles remain legal and are obviously made up on yards and feet, he is trying a ploy, in his professional work as a building surveyor, to show all dimensions on drawings for planning approval in fractions of a mile: e.g. "0.0078 = 1/128th of a mile" (i.e. 41'3"). He has promised to report the outcome. Finally, he encloses a copy letter dated 10 February from Mr Justin Warren, Product and Marketing Services Manager of Crane Fluid Systems (Nacton Road, Ipswich, Suffolk IP3 9QH), which is worth reproducing in full.

"The European standard for malleable iron fittings is likely to be revised in the year 2000. Under the current standard, two different methods are permitted for designating M161 Tees and M199 Pitcher Tees. The current UK method of designating these fittings is likely to be removed from the standard, with only the European method remaining. CRANE believes that changing to this new method of designating tee sizes would not be in the best interests of our customers, as this would be contrary to current UK practice. We feel there would be a great deal of confusion in the UK market if we carried out these changes.

We will therefore NOT BE CHANGING over to the European method of designation. We will continue to work to the current method as the primary method of designating tee sizes. CRANE fittings will continue to conform to the revised European Standard by dual-marking our catalogues and labelling, and universally marking our products. In these instances the UK method will be used as the primary method, with the European method secondary. We feel this solution strikes a balance between the need for CRANE to continue to meet the requirements of the standard, whilst eliminating the unnecessary confusion to our customers which would result if we changed.

As the only UK manufacturer of Malleable Iron Pipe Fittings, we see it as our duty to ensure that UK customer interests are protected in the development of European standards affecting our industry, unlike the approach of our main competitor ..."

## Press comment

The following curious item appeared in the "Diary" column of *The Times* on 3 February:

"The explorer Sir Ranulph Fiennes is throwing his weight behind a campaign to allow market traders to sell their wares in imperial measurements, rather than accept an EU directive to turn metric. In fact, so keen is he on the Weights and Measures Association's [sic] mission that he has called for their leading light, barrister Michael Shrimpton - who is bringing a test case to keep the old system - to be made a saint. 'If Mr Shrimpton comes up with a positive result, he should be canonised.' Joining him in this quest are the actor Edward Fox and Sandy Gall. I wish them luck." Clearly, this *Times* columnist must have been told about some of our Honorary Members, and got hold of only half the story - but we're not complaining!

Mentioning *The Times*, an interesting feature appeared on 20 January about the discovery in Patagonia of a fossil of a sub-species of dinosaur, living some 105 million years ago, that must have been much bigger than any hitherto known, with an overall length of some 160 feet. Every detail in the article was in traditional measures.

Boris Johnson, editor of *The Spectator*, devoted a whole page to an article (8 January) which concluded: "It is monstrous that little tin-pot 'metrologists' on local authorities should be fanning out across the country, threatening shopkeepers with fines of £2,000 and imprisonment if they fail to comply. The ban on imperial measures is, in any event, a complete abnegation of single-market principles, viz the principle of mutual recognition of standards. There is no reason why the two should not co-exist, and if they are to compete, then let the best loved system win.

Why are we coercing Britons to use the measurements of Napoleon, when the imperial system survives and flourishes in America, the most successful economy on earth? What's got into us all? ... Shall Shakespeare speak of kilos of flesh and shall the Irish peace process centimetre its way forward? Even as I write these words, I can see your eyes rolling and I can hear the men of moderate views tapping their bony skulls ... And I say, so what; and in any case the real extremists are on the other side. In his autobiography, Geoffrey Howe said that the failure of Britain to go fully metric in 1973 was a 'tragedy'. Now there, surely, is the man who has lost all sense of proportion. Does he really mean a 'tragedy', of Sophoclean proportions, with Heathipus Rex stumbling around groaning and blinding himself in self-reproach?

There you have the measure of the men and their strategy. They insinuate that the Tories have some ultra agenda on Europe, when they do not, and they call the failure to metricate a 'tragedy'. They are the extremists, ladies and gentlemen. They are the zealots. And if you feel the ancient urge to rave, in a

Euro-sceptic way, then rave on. Give them, an inch, I always say ..."

*The Spectator's* "Banned wagon" column ("A weekly survey of the things our rulers want to prohibit") in its next issue (15 January) pursued the topic: "The rules forbidding the sale of loose goods by imperial weights also apply to the sale of goods by imperial volumes and lengths. What if you happen to have an old house with imperial-sized floorboards and you need to replace a section, or if you need to replace some imperial-sized bolts? 'You are entitled to go to a wood merchant and ask for imperial sizes, but they must sell you the nearest metric equivalent,' says a spokesman for the DTI. Too bad if you trip up on the resulting lumps and bumps.

But it is the aircraft industry that faces the gravest problems. No one ever died because they bought the wrong quantity of sprouts, but who would want to be an engineer servicing an American plane - they are still built to imperial units - now that the sale of imperial-sized spare parts is banned? Fortunately for airline passengers there is a solution, but it is not one which is going to do much good for British industry: according to Terry Holloway of Marshall's Aerospace, which services and refurbishes airliners, the company will simply have to buy its imperial parts from America in future.

For amateur enthusiasts trying to keep their 60-year-old Tiger Moths flying, the only option may be to cheat: specialist companies selling imperial-sized parts will have to have them code-named to avoid the wrath of the weights and measures man. In other words they will have to disguise a three-eighths screw as 'part number 3/8' - and label it as a 9.615384mm screw. And even then they'll probably have to meet their customers by the third litter bin on the left, clutching a rolled-up copy of *The Times* beneath one arm."

So many enquiries were prompted by our brief quotation in the last *Yardstick* (page 6, col. 1) from the article by Roger Scruton in *The Times* on 9 December, that we must now reproduce its final paragraphs, which make important points not seen elsewhere:

"There is another and deeper reason to resist these mad imperatives. The French Revolutionaries believed that by changing weights and measures, calendars and festivals, street-names and landmarks, they could undermine the old and local attachments of the people, so as to conscript them behind their international purpose ... In a small way the same is being done to us.

The effect of destroying our weights and measures will be not only to undermine the old local loyalties between shopkeeper and customer. It will be to destroy the small businesses that cannot afford the change. And we should ask who would really want such a result. The answer, it seems to me, is clear. The supermarkets are international players, who have a vested interest in the metric system, since

it is applied in most of the countries from which they import their products. If the measures on which old and local businesses depend are criminalised, the supermarkets will score yet another advantage in their war on behalf of the global government that will do most for their profits. Is that what we want? Surely, it would have been nice of our dictators to ask us, before commanding us to change."

*The Daily Telegraph* published a leading article on 11 February which is also well worth reproducing:

"You can list all the ridiculous things we have done in Brussels in recent years,' Romano Prodi admitted recently. Indeed: how about the compulsory metrication of loose goods - whether cement or satsumas - weighed at the point of sale, which came into force at the start of the year? Creeping metrication, which began in 1995, epitomises the European Union's almost limitless ability to ignore individuality and diversity, however often it claims to respect these freedoms. Put simply, it should be the paying customers, not the EU, who decide in what units they buy their goods. There is no economic rationale behind metrication; if anything, it makes European producers less able to

export to the United States, which still deals significantly in imperial measures.

The tension between imperial and metric measures is symptomatic of a much deeper cultural divide between Atlantic Britain and post-Napoleonic continental Europe. The next treaty ... must surely accommodate this difference, not by mandatory integration but through greater flexibility. Weights and measures reflect a difference in experience that the EU should cherish. Britain enjoys an organic system of measurement that grew out of personal experience: feet for distance, hands for horses' height. Before Napoleon, these were truly European units. On the Continent, they went out with the *ancien régime*, to be replaced with revolutionary rationalisation along decimal lines, including, for a while, 10 months to the year. A similar imposition by the EU for parallel political reasons is just as arbitrary. It remains to be seen whether the Department of Trade and Industry will have the stomach or the case to prosecute the scattered army of shopkeepers who are justifiably taking a stand on this issue."

## Government propaganda

Dr Kim Howells, the responsible DTI Minister, is still telling untruths, even in correspondence with Parliamentary colleagues and despite our exposure (in *The Great Gram Scam*) of all the metric myths and fabrications. He persists, for example, in stating "You asked about penalties and enforcement. Magistrates determine the fine in individual cases, but may not exceed £2000 for a failure to indicate the quantity in metric units and may not exceed £5000 for a failure to indicate the price per kilogram or per 100 grams. These penalties are not new. They pre-date UK metrication and the units of measurement directives, and were used formerly to require traders to indicate weights and prices in imperial units."

On the contrary, the use of metric units in the UK as an alternative to imperial for all practical purposes has been legal since 1897, allowing freedom of choice for 98 years until 1995; so to claim that severe penalties were imposed on traders failing to use imperial is untrue.

Prior to 1897, of course, there was no alternative to imperial, since there was no demand for metric whatever, so any trader failing to use authorised units can only have been guilty of short measure, debasement or adulteration or some other fraud, all of which deserved severe penalties. Yet they are what Dr Howells compares with the offence of continuing to use imperial measures today.

As always, too, Dr Howells tells the triple lie which has become the DTI trademark: "the policy pursued by all Governments since 1965: that metric units should be adopted in stages as the UK's

primary system of measurement, in line with the global trend in favour of the metric system."

This is highly misleading since (a) the issue is not metrication but *compulsory* metrication, which originated in November 1989 at an EC Council of Ministers Meeting which nodded through the first draft directive - prior to which every Government had sworn never to introduce compulsion; (b) the new regulations effectively make metric not the primary but the *sole* system; and (c) as for the "global trend", the world's most successful and powerful economy is staying with traditional measures.

Indeed, we have received a report from the USA that the North Carolina Department of Transportation has followed the example of so many other States in deciding that all road construction designs will revert to customary measures.

Geoffrey Martin, Head of the EC's UK office, tells the same breath-taking falsehoods. His standard letters state: "the EU does not impose policies on the UK", yet at that Council of Ministers' Meeting in November 1989 decisions were taken by "qualified majority voting," so the UK team could be out-voted. Then he usually continues: "metrication was a decision of the UK Parliament and Government predating membership of the (then) EEC by more than a decade" - that means more than ten years before 1973 - but he can never produce the slightest evidence to prove that the UK Parliament and Government decided to impose metrication prior to 1963. Incidentally, the European Commission's UK office address, for those who want to write to him, is: 8 Storey's Gate, London SW1P 3AT.

For sheer hypocrisy, however, the palm must go to Magnus Leminel who - as hardly anybody knows

– is the EC's Acting Director General for Industry, as successor to the disgraced Commissioner Martin Bangemann, the apostle of compulsory metrication. For all we know, M. Leminel may have had to be replaced by now, but whoever occupies that all-powerful position will no doubt continue to use the same stock paragraphs, such as: "I would like to stress right from the outset that, as always, the principle of subsidiarity was strictly applied when drafting the legislation concerned. In areas of Community competence, however, subsidiarity is restricted to the means and measures of implementation of Community legislation, not its substance." In other words: "How you do it is up to you, so long as you do as you're told"!

This, of course, is a direct contradiction of Geoffrey Martin's pretence that "the EU does not impose policies on the UK".

The sole justification ever advanced for compulsory metrication is to improve the Single European Market, but it is never explained how the sale of fresh foods and other loose goods, within British shops to the British public, could conceivably affect the European international market. Our masters proclaim "an objective of EU legislation, to eliminate barriers to trade within the European

Community". So curtain material has to be sold in centimetres and sweets have to be sold in grams and paraffin in millilitres, to customers who do not understand or want these measures, in order to remove barriers to trade within the EC!

The truth is, on the contrary, that the real motive is to *erect* barriers to trade between the UK and the USA. To paraphrase the sentiments of that villain Martin Bangemann and his disciples at the DTI, "The UK is in an anomalous position, being on the one hand a full partner in the EU while, on the other hand, sharing a common system of customary weights and measures with the USA, thereby enjoying an unfair competitive advantage over other EU member states in transatlantic trade".

Future historians will show that this was the secret purpose of compulsory metrication – to destroy the great economic and cultural benefit that Britain has always enjoyed by virtue of this common heritage of weights and measures. From the EU's point of view, it is bad enough that the UK and USA share a common language, but they can't make it a criminal offence to speak English, so the one thing they can do is to make it a criminal offence to use the "inch-pound" system that we also share.

## Back to the Dark Ages?

Prompted by the absurd statement recently by Keith Vaz, Minister for Europe, that, "... the whole world is metric. Please don't drag us back to the Dark Ages" [of traditional measurements], John Douglas has written a powerful paper, summarised here.

He states that, "metric itself is a product of the mentality of the dark ages," a product of the fear and superstition that surrounded those skilled in mathematics and geometry ... It was believed that those who were learned in numbers could use their powers to manipulate the forces of nature for sinister purposes which could either undermine or reinforce the authority of Church or Crown. Numbers used as the basis of measure were related to the natural world – as our friend, the noted author John Michell has shown, the foot was applicable to and unified mankind, the earth and the cosmos.

Revolutionary France was so fearful of "Natural Magick and Mathematicall Magick" and those who practised it that they invented a system of measures that could not be used in this way. That is why they used base ten instead of twelve and created a basic unit of length, the metre, with no readily identifiable reference point in the natural world. As rationalists, they wished to divorce themselves and everyone else from nature. In the murder and mayhem of 1789 and subsequent Terror, they tried to abolish the Christian calendar and even Christianity itself as being a relic of the "dark ages" when men believed in a power greater than their own.

So what was this Natural Magic which angered and frightened the Age of Reason? The Swiss physician, alchemist and mystic Paracelsus (1493-1541) explains thus: "The exercise of true magic does not require any ceremonies or conjurations or the making of circles, or signs; it requires neither benedictions nor maledictions in words, neither verbal blessings or curses; it only requires a strong faith in the omnipotent power of all good, that can accomplish everything if it acts through a human mind who is in harmony with it."

It is the "true and perfect science of the natural combination and proportion of known parts" – in other words it is nothing more than attempting to live in harmony with the natural world, which is an idea that has become extremely fashionable nowadays. Using arbitrary, artificial metric measures strikes a discordant note in this search for a greater harmony.

What constitutes Mr Vaz's "Dark Ages"? When was that era? Pharaonic Egypt, Classical Greece, the Roman Empire or maybe the age of the great Cathedral builders in mediaeval Europe? The legacy of these civilisations still permeates our souls. All of them lived with nature, using natural and extremely accurate measurement systems – more accurate than the French decimal one. It is a truly dark age whose secular and scientific accomplishments, including the metric system, can generate such misery and suffering as are witnessed in the world today.

## More errors found in Government's metric report

The following further observations regarding the shoddy government report on metrication have been sent to us by John Strange.

"I must comment on the disgraceful DTI Report (*The Adoption of the International System of Units ...*) following the excellent article in *The Yardstick* of August 1999 (No. 9).

They're lying, of course. We're not getting the self-styled *système international d'unités*. What we're getting isn't a system at all but merely a collection of what I call Common Market units. The EC Directive 80/181/EEC makes it quite clear that we are getting these SI units *plus* a heterogeneous selection of non-SI units. So far from improving the system by introducing extraneous units they are actually destroying its unity.

The seven SI base units are listed in 80/81 in chapter 1 of the Annex, Section 1.1. This is followed by Section 1.1.1 in which the Celsius scale is introduced. It is *not* asserted there that the degree Celsius is a metric unit. The Directive itself gives the clue, for the listed base units are all followed by reference to a *Conférence Générale des Poids et Mesures* but the degree Celsius is not. On the other hand, the authoritative *Handbook of Chemistry and Physics* (78th edition, 1997-98) explicitly states that we should not use metric prefixes in conjunction with Celsius. Therefore, and bearing in mind the fact that the SI admits of only one unit for each type of magnitude (see below) and given that the SI unit of temperature is the kelvin, I conclude that the degree Celsius is not a metric unit.

For many scientific and technical purposes, this fundamental principle of the metric system - having only one SI unit for each type of magnitude - is a great advantage: e.g. the metre for distance and ampere for electric current. But some magnitudes cannot be measured in terms of the seven base units. So speed is measured by combining the metre and second to give the metre per second and quantity of electricity is measured by combining the ampere and the second to give the ampere-second.

Such units are called derived units; some are given names of their own, others are not. Thus, the

ampere-second is called the coulomb. Consequently, the hour (3,600 seconds), the kilometre per hour (5/18ths of a metre per second) and the ampere-hour (3,600 coulombs) are not SI units. Indeed, the *Handbook of Chemistry and Physics* states explicitly that the hour is not metric.

Here are some non-metric units, together with their metric equivalents, whose use is nevertheless permitted by the EU and which seem to be passed off as metric by our supine government.

<i>Non-SI unit</i>	<i>SI equivalent</i>
"x" degree Celsius	273.15 + "x" kelvin
hour	3,600 seconds
kilowatt hour	3.6 megajoules
ampere hour	3.6 kilocoulombs
kilometre per hour	5/18 metres per second
metric ton (tonne)	1 megagram
litre	1/1000 cubic metre

The use of the terms metric ton or tonne and litre is allowed within the metric system because they are decimal multiples or submultiples of metric units. On the other hand, the calorie of 4.1868 joules is not allowed by the Directive but is used by nutritionists, apparently with impunity.

Here, finally, are a few factual errors from the schedule headed "Relevant imperial units, corresponding metric units and metric equivalents".

Nautical mile (UK): 1853.184 metres - they've tried to give everything else exactly, so why not this?

Inch of water: about 248.532 pascals at a temperature of 62F and pressure of 30" of mercury - they have assumed that the mass of 1 cubic metre of water is 1 megagram, but even at its most dense (39F) it's about an ounce short of this amount and at 62F the mass of 1 cubic metre of water is very nearly 997.76 kilograms.

Therm: 1.05505585262 kilojoules - this is the stupidest mistake of the lot, for they tried to calculate 4.1868 x 453.59237 x 5 / 9 but got their sums wrong!

Finally, on page 7 (footnote 3) of the Report it is stated that the fluid ounce is 28.412 millilitres, but in fact it is slightly in excess of 28.413 (28.4130625 to be precise - and why not be precise?)."

## Romans and railways

The US standard railway gauge is 4ft 8½ inches. That's an exceedingly odd number. Why was that gauge used? Because that's the way they built them in England, and English emigrants built the first American railroads.

But why did the English build them like that? Because the first rail lines were built by the same people who built the pre-railroad tramways, and that's the gauge they used.

But why did they use that gauge then? Because the people who built the tramways used the same jigs and tools that they used for building wagons, which used that wheel spacing.

So why did they use that odd wheel spacing? Well, if they tried to use any other spacing, the wagon wheels would break on some of the old long-distance English roads, because that's the spacing of the wheel ruts.

So who built those old rutted roads? The first long-distance roads in Europe (and England) were built by Imperial Rome for their legions. Many of these roads have been used ever since. And the ruts? Roman chariots first made the ruts, which everyone else had to match for fear of damaging their wagon wheels. Since the chariots were made by or for Imperial Rome, they were all alike in the manner of wheel spacing.

Thus, the United States standard railroad gauge of 4ft 8 1/2in derives from the original specification for an Imperial Roman war chariot - this being a comfortable width for harnessing a pair of horses.

And now, the twist to the story. When we see a Space Shuttle sitting on its launch pad, there are two

big booster rockets attached to the sides of the main fuel tank. These are solid rocket boosters, or SRBs. The engineers who designed them might have preferred to make them a bit fatter, but they had to be shipped by train from the factory to the launch site. The railroad line from the factory had to run through a tunnel in the mountains. The SRBs had to fit through that tunnel. The tunnel is only slightly wider than the railroad track, and the railroad track is just as wide as two horses' behinds.

So the major design feature of Space Shuttles - the world's most advanced transportation system - was determined by the breadth of a horse's backside.

[Thanks to David Delaney who received the above from a friend via the Internet.]

## Conversions examined

The following reflections by John Strange deal with the subject of converting measurements and arise from comments in *The Yardstick* (No. 10) Readers who have no interest in physics will probably want to skip the first few paragraphs! Over to John:

### Measurement for physicists

The item at the top of the second column on page 9 of our last issue gave me cause to stop and think for a while. The hectopascal is *not* another name for a millimetre of mercury; it is another name for a millibar. In the old centimetre-gram-second system, the unit of pressure is the dyne per square centimetre. A millibar is 1000 dynes per square centimetre. Lots of people who need atmospheric pressure for technical reasons (aviators, seafarers, meteorologists, etc) have been using millibars since before the last world war. They are naturally reluctant to change to the SI unit, which is the pascal. But one millibar is 100 pascals. So they still *use* the millibar but sometimes *call* it a hectopascal.

Standard atmospheric pressure in the British system is 30 inches of mercury which is equivalent to something between 101.591 and 101.592 kilopascals. Standard atmospheric pressure in the metric system is 101.325 kilopascals which corresponds to 760 millimetres of mercury. Consequently, 1 hectopascal is a shade over 3/4 of 1 millimetre of mercury (0.75006).

Lower in the same column, in the item headed "Italian bureaucracy in action," how absurd to ban the hectogram while allowing the hectopascal! Many English words in which *ch* is pronounced *k* come from the Greek: the Greek letter known as *kappa* normally becomes *k* in English whereas the Greek letter known as *chi* becomes a hard *ch*. Now the classical Greek word for a thousand has a *chi* rather than a *kappa*; so are they going to tell the Greeks to change their language - and if not, why not?

Immediately below in the same column, the item headed "Which metric..." brings attention to my dispute with British Gas - the hour and the minute

are not metric! Not even the EU pretends that they are. The fact is, of course, that the metric system was created by scientists for scientists.

### Measurement for cooks

The article headed *Food writers* (p. 10) reminds us that 1 litre is very nearly 35.195 fl.oz whereas 1 kilogram is very nearly 35.274 oz. So, to convert a recipe given in litres and kilograms, multiply by 70 and divide by 2, to give equivalents in fluid ounces and ounces.

Bear in mind, too, that if, for example, a recipe requires 1/2 pint (i.e. 10 fl.oz) of water and 1 oz of butter, then the ratio in metric units will also be 10:1. So instead of saying 284 millilitres of water and 28 grams of butter, which are the metric equivalents, it's easier to say 300 millilitres of water and 30 grams of butter.

Similarly, 16 oz = 1 lb and 16 fl.oz = 1/10 gallon: again we have the same factor. Suppose a recipe requires 2 quarts of water (i.e. 5/10ths of a gallon) and 2 lbs of mutton, equivalent to 2.273 litres of water and 907 grams of mutton; but it's much easier simply to divide the British quantities by 2 and say 2 1/2 litres and 1 kilo. To sum up, we can translate a British recipe into metric in either of two ways: (a) for small quantities, reduce all weights to ounces and all volumes to fluid ounces, then multiply by 30 and you will get a reasonable approximation in grams and millilitres; (b) for large quantities, reduce all weights to pounds and all volumes to tenths of a gallon, then divide by 2 and you will get a reasonable approximation in kilograms and litres. (In the former, the relative quantities are actually increased by about 5.8% and in the latter by about 10.2%, which in both cases are generally negligible.)

To convert a metric recipe into English is even easier. If it is given in grams and millilitres, simply divide by 30 (or multiply by 0.33) and you will get the equivalent in ounces and fluid ounces. If in kilograms and litres, just multiply by 2 to turn it into pounds and tenths of a gallon.

Here are more refined conversion tables which BWMA could use in a revised edition of our *New Guidelines for Food Writers*. These values are correct to the nearer ¼ of an ounce (or fluid ounce) since the ¼ oz weight is normally the smallest used on kitchen scales. But we start with Mrs Beeton's basic table of quantities (from her classic *Family Cookery*):

2 saltspoonfuls	=	1 teaspoonful
2 teaspoonfuls	=	1 dessertspoonful
2 dessertspoonfuls	=	1 tablespoonful
4 tablespoonfuls	=	1 teacupful
2 teacupfuls	=	1 breakfastcupful
2 breakfastcupfuls	=	1 pint

Using these data, we find:

1 pint	=	20 fl.oz	568 millilitres
1 breakfastcupful	=	10	284
1 teacupful	=	5	142
1 tablespoonful	=	1¼	36
1 dessertspoonful	=	5/8	18
1 teaspoonful	=	1/3	9
1 saltspoonful	=	1/6	4

POUNDS or PINTS	KILOGRAMS	LITRES
1	0.455	0.57
1¼	0.565	0.71
1½	0.68	0.85
1¾	0.795	0.995
2	0.905	1.135
2¼	1.02	1.28
2½	1.135	1.42
3	1.36	1.705
3½	1.59	1.99
4	1.815	2.275
4½	2.04	2.555
5	2.27	2.84

OZ/FL.OZ→GRAMS	GRAMS/ML→ OZ			
	ML		FL.OZ	
	if different		if different	
¼	5	5	¼	
½	15	10	¼	
¾	20	20	¾	
1	30	30	1	
2	55	40	1½	
3	85	50	1¾	
4	115	60	2	
5	140	70	2½	
6	170	80	2¾	
7	200	90	3¼	
8	225	100	3½	
9	255	200	7	
10	285	300	10½	
11	310	315	400	14
12	340	500	17¾	17½
13	370	600	21¼	
14	395	400	700	24¾
15	425	800	28¼	
16	455	900	31¾	
17	480	1000	35¼	
18	510			
19	540			
20	565	570		

John Strange added a couple of interesting curiosities. He had heard a story that "seven-league boots" were the name given to the voluminous boots worn by coachmen, seven leagues (about twenty-one miles) being a fair distance between stages.

He also enclosed a piece of cardboard from an Italian "panettone" carton showing the net weight marked as 1000g and 2 lb 3 α oz. We have never before seen ounces shown in thirds. This is all the stranger because 3 ¼ would have been accurate as well as more conventional.

## More metric muddle

Brian Mooney wrote that his local Costa Coffee in Hammersmith sold Colombian filter coffee at £5.35/lb, until metrication changed the price to £1.50/100g, which equates to more than £6.75/lb, an increase of 26%. When the assistant asked how many grammes he wanted, he asked (loudly enough for everybody to hear) for "One pound", whereupon he was served a pound bag at the old price but warned that this was a "special promotional offer", not to be repeated!

Similar grounds for complaint were reported by another member, who noticed, when buying coffee, that the assistant weighed out only 220g for the half pound he had requested, but still charged the full £2.48 price of a half-pound. When he questioned this, he was told that she was working from a conversion card issued by a wholesaler. She showed him this card which showed that the calculations had been based on 27.5g to the ounce instead of the proper 28.35g. He commented, "That would have cost me only an extra 7.5p or so, but that's over 3% gross profit for nothing. So carry your own conversion chart, based on 28.35g per ounce and insist on ordering in pounds/ounces and on being served with the correct amount!"

The media made almost as much of "millennium babies" as "millennium metrication", yet the birth announcements in newspapers invariably quoted the babies' weights in pounds and ounces!

Peter Scott from Denham, Bucks, complained in a letter published in the CAMRA journal *The Full Pint* that "metrication of bottled beers is another rip-off ... Trading Standards Officers take no action even when 500 millilitre bottles are made to look taller than imperial pint bottles. The consumer is being fobbed off with only 88% of a pint, thanks to metric madness. Campaign for full pints - draught and bottled!"

Peter Turner from Chelmsford relates that his wife's yoga teacher started this year's night classes with the intention of "going properly metric"; suggesting to the class that they lift certain parts of their anatomies by "a few millimetres". They were impressed with her modernity until, a few moments later, she said, "Will you all inch forward a bit - oh, I shouldn't have said that! Maybe I won't go metric after all - it doesn't work!"

When Vivian Linacre took part in a discussion recently, broadcast live on Radio Scotland - with Michael Shrimpton, the barrister, David Stephens, the Southend

butcher, and Geoffrey Martin, the Head of the EU's UK office, the presenter tried, immediately after the introductions, to trick him with the opening question: "How tall are you - in centimetres?" Vivian replied (tongue in cheek) "82 or 83".

She was impressed that he apparently knew the answer, and proceeded with the debate. But what neither she nor the hostile Geoffrey Martin nor any of the hundreds of thousands of listeners had noticed (for there was a lively "phone-in" later) was that Vivian had actually given his weight in kilograms (about 13 stone) rather than his height, which should have been 1,702cm (5'7"). But nobody, of course, could tell the difference!

Mr Goodhand from Somerset saw a customer, at a Sainsbury's delicatessen counter, point to a particular slab of cheese and, when the assistant asked "How much?" she replied "about a couple of inches thick, please", whereupon Mr Goodhand could not resist interrupting with "Sorry, they can only sell in centimetres, now!"

Steve Fenn from East Barnet wrote at great length to Warehouse Direct concerning the incredible confusion between imperial and metric units throughout their mail-order catalogue.

For example, a Stanley work platform which is the "perfect working height for decorating a standard 8ft high ceiling", specified as "working height 0.6m"; electric drills having chucks of 10mm, 13mm, and 3/8 inch; a 16oz claw hammer, chisels with sizes in inch fractions, etc, but tape measures shown in metric only; a compound mitre board that "can make cuts up to 18 inches" but that "cuts compound

### "ENGLISH SPOKEN HERE" NOTICE

Details of this new sign can be seen on page 6.

#### 12-INCH RULER

Plastic ruler, inch scales, BWMA's name & address & the words "Feet and inches are miles better."

Prices include postage: £1 for 1, £1.60 for 2, £4.20 for 6, £7.20 for 12. Send cheque or (if under £2) loose stamps with your order to 45 Montgomery Street, Edinburgh EH7 5JX.

angles up to 25mm"; an oil-free compressor with a 50-litre receiver but a capacity of 117 lb/square inch; a "quarter inch single-speed router with a 50mm plunge stroke"; a foldaway ladder which "comfortably carries 50kg at a working height of 96cm yet compacts to 51x4x3 inches"; boiler suits of sizes from 40 to 46 inches, all with an 82cm inside leg; a mini-compressor with a maximum pressure of 260 lbs/square inch but a power lead of 3.6m and a hose length of 0.6m; a turbo propane space heater with an output of 40,000 British thermal units but can heat a volume of 240 cubic metres; a 100ml bottle of 2-stroke oil which it is advised "simply to mix with 1 gallon of petrol for the perfect 50:1 mix"; an ornamental pump with "bases tapped one and a quarter inch BSP pipe" but a 640mm height and 16.2kg weight; aluminium carpet cover strips 32 inches long by 35 or 60 millimetres wide ... and so on.

You might say that it uses a sort of "metrimperial" system!

## AGM and Conference on Saturday, 3 June 2000

Our Fifth Annual General Meeting and Conference will be held on Saturday, **3 June 2000** in the New Cavendish Club (on the corner of Great Cumberland Place and Upper Berkeley Street, just a few blocks north of Marble Arch), London, W.1.

The **AGM** will start at **10.30** am (Registration and Coffee **from 10.00** am) and finish at 12.00 noon. Admission to the AGM (for members) is, of course, free.

Members and guests may lunch in the Club dining room at 12.30 or take a light lunch in the

bar, or make other arrangements elsewhere. If eating in the Club, please specify (dining room or bar) when ordering tickets, so that we may notify the kitchen, reserve tables and save time.

The **Conference** will start at 1.30 for 2.00 pm and close at 3.30 when tea will be available until 5.00. Among the speakers will be **Geoffrey Cox**, barrister at law, whose talk will be on the subject of "demetrication."

**Please apply for tickets now**, at only £5 per head (member or guest) for the Conference, including tea.

## British Weights & Measures Association

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**Membership costs £10 for a year. Send cheque/postal order (payable to BWMA) to the Subscriptions Secretary.**

Views expressed in *The Footrule* are not necessarily those of the Association.