## Don't use metric



## Pat Naughtin

Might I respectfully suggest that you don't have to use the metric system?

Sit in your lounge chair and look about you, or walk about your home, and think of the things you own or use that are metric, and those that are not. Then you might like to go shopping while you consider the same question. Once you have decided what's metric and what's not, simply avoid all of those products or services where metric measures are used.

Here are a few suggestions that you might find helpful.

- Don't use any electrical appliances whatsoever. Electricity has always used metric units. It's a no-no. For example, don't use an electronic radio alarm to wake you in the morning as these use the metric units: amperes, coulombs, farads, henrys, ohms, siemens, teslas, volts, webers, and watts (at the very least). Choose one of those old wind-up clocks, making sure that it doesn't have a second hand because seconds are metric units too. If you have a gas stove don't light it the heat energy from the gas is evaluated using metric units (kilojoules or megajoules) so you won't want to cook with gas.
- When you get out of bed, it's OK to wear slippers because these still use the good old-fashioned size numbers developed in the time of the Magna Carta in 1215. As size numbers are based on the length of a barleycorn, shoes are OK to wear too. As most of my shoes don't fit too well, I suppose that barleycorns must vary quite a lot. The pain of your ill-fitting shoes will constantly remind you that your shoes are not measured with the accuracy and precision of millimetres at least you can feel good about that.
- 3 In the bathroom, avoid using mouthwashes, toothpaste, hair care products, and skin care products in metric containers. Be careful, as the toothpaste might say ozs, but these could be metric sizes such as 100 mL (3 17/32 fl oz (imp) or 3 3/8 floz. (US)). This trick is known as 'hidden metric' and it happens when metric products are re-labelled using non-metric measures to give you an illusion of continuing contact with colonial times. Remember, if you use these products, you are still supporting the metric system.
- 4 Avoid breakfast cereals because of the metric nutrition information on the side of the packet. Beware of eggs; the eggs probably had their cholesterol levels measured in micrograms. And as for bacon it is probably best to avoid it. Consider this conversation, overheard in a delicatessen, where the bacon was packed in 250 g packs:

Old Fogeu: Don't talk to me about them kilo-thing-amus things missu. I think in pounds.

Modern Ms: I don't know anything about pounds. I went to school in the 1970s so I'm not old enough to know what you're talking about.

Old Fogey: I want half a pound of bacon.

Modern Ms: I'm sorry Sir. This pig was killed and packed in metric, if you want some bacon, either you ask for it in grams, or you will have to go out and kill a pig for yourself.

And your coffee from Brasil was packed using kilograms – so your cup of coffee has to go too. This is a pity if you've just chopped the wood and lit the fire (no gas or electricity remember) hoping for a caffeine fix.

5 After breakfast, dress carefully, avoiding clothing from any nation in the world except the USA. All other nations design and manufacture clothing using metric measures. Even with garments made in the USA be careful — wool, cotton, nylon, and polyester fibres are all measured

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using micrometres for diameter and millimetres for length. Be aware that clothes makers often design and make metric garments with metric measurements then they dumb down the real measurements to size numbers for the public. You might even like to consider walking about naked to demonstrate your anti-metric stance and your level of commitment to old pre-metric measures.

6 When you go out, don't travel in any sort of motor vehicle unless it's very old. Volkswagens, for example, have been metric since the 1930s. Now, all cars in the world (including all those in the USA) have been fully metric since the development of interchangeable parts for the 'world car concept' in the early 1970s. Every modern family sedan has (about) 10 000 separate parts, each of which requires (say) 10 measurements. All cars have been measured some 100 000 times – using metric measures – often to the nearest tenth of a millimetre.

Let's suppose that the maker of a metric family sedan labels the odometer, the speedometer, and the tyres in miles, miles per hour, and inches respectively. These three labels (they're not measurements) out of 100 000 are sufficient to convince some car owners that they are driving an 'English units' car in an 'English units' nation, and that all is right in this 'English units' world – but not you – you know about hidden metric. Don't be fooled by this extreme example of hidden metric. Don't own, don't drive, don't hire, and don't ride in any automobile, and it's best to be cautious with trucks, buses, tractors, and motorcycles as well — even the Harley-Davidson motorcycle is now all metric.

- If you have a job to go to, it probably won't be in manufacturing because around 70 % of manufacturing industry in the USA is already metric, and most of the rest use imported metric components. The military is out too; they've been using metric armaments for years. It's also unlikely that you will work in importing or exporting. The rest of the world is already metric and they are finding it increasingly difficult to trade with the USA. Since every other nation in the world has already chosen to use metric, they say: 'Why should we bother to convert back to old measures, just so we can do business with the USA, when all the other, 180 or so, nations have already converted to metric?' and 'You only need visit internet sites of mechanical parts and machines tools in the USA to see the magnitude of their measurement disaster.' So the USA imports more metric goods and services than it can export using old-style measuring units.
- At work you won't use computers (no electricity remember): and even laptop computers use batteries measured with volts. Even if you could use them, modern computers are all metric. Don't be fooled by things like the, so-called, 3 1/2" floppy or 17 inch screens; these are simply more examples of hidden metric. According to international standard (ISO/IEC 9529-1) floppies are 90 mm x 94 mm x 3.3 mm, with a mass of 24 g, and the magnetic media inside is 86 mm not a 3 1/2 anywhere! Of course the 90 millimetre floppy disk has now largely been replaced by the 120 millimetre CD and DVD formats but watch out for the 50 mm memory stick being described as 1.97 or 1 31/32 in.

All other computer components come with metric specifications – all hidden of course. In addition to the clock speed of the computer, in megahertz, and the size of the memory, in megabytes and gigabytes, all the fasteners and other parts of your computer, all the way down to the substrate to make the computer chips is metric. The makers then give your screen a name in inches (very approximately) and the software writers use default tabs and margins in inches, and these are enough to delude almost everyone into thinking that they are using old-style technology.

- At lunch, don't eat anything that might be measured using calories, Calories, kilocalories, or the correct unit kilojoules, as these are all metric units. It's probably best to avoid dinner on the same grounds. Clearly, now that you don't eat breakfast, lunch, dinner, or (probably) snack foods, your anti-metric program is going to do a lot of good for your body mass index. You might not even need the job you haven't got any more.
- 10 By the way, it's OK to pay for lunch with a credit card. Credit cards have been around long enough to have the old measurements of 3 3/8 inches by 2 1/8 in recognised by most 'hole-in-the-wall' money machines.

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Back at work after lunch, you are probably restricted to working in finance, journalism, or politics. These three are areas where the participants are never quite sure about what's happening in their own community, in their own nation, or in the rest of the world.

As an example, think of the USA financial world's change from 'pieces-of-eight' to decimal currency in early 2001. The rest of the world began its inevitable conversion to decimal currency when the USA changed in 1793 and the world completed the change, approximately, in the 1960s. Most of the world's citizens changed to decimal currency in about a month – it took the New York Stock Exchange 208 years – and many (most) journalists and politicians are still wondering how to react to the USA financiers' ill-considered haste. When I think about it, your expertise and experience might be in one of these three fields already. If you work in finance, journalism, or politics make sure that you avoid things like 1 mm ballpoint pens, pencils with 0.5 mm leads, and have nothing to do with the massive savings possible by using metric paper sizes such as A3 and A4.

- 12 At the end of the day, you had better not visit the gym. There they are inclined to measure skin folds in millimetres and to calculate your body mass index using your mass in kilograms and your height in metres. Don't even watch sport on TV; all the athletes are running distances like 100 metres or 400 metres or pole-vaulting over 5 metres. Even the 10 yards used in American football are all exactly 9.144 metres long.
- After work, drinks are out. You need to steer away from all kinds of soft drinks, soda pops, bottled waters, wines, and hard (spirituous) liquors as these come in metric sizes. Even beer might be hidden metric as the calculations used to make beer are so easy to do in metric, and so difficult to do with old-fashioned units.
- If you decide on a holiday, be careful if you are planning to use aircraft or ships. Remember that navigation was all the rage from the 1660s to the 1790s when the international metric system was first set up. So the first metric developers based their ideas on the size of the world as a support for navigators, and now the International Civil Aviation Organization (ICAO) regulations are all metric and have to be dumbed down for old-fashioned pilots. Both aircraft and ships use the satellite-based global positioning system (GPS) to find out where they are around the Earth. Unfortunately for your travel plans, the GPS is metric. Pilots, in both air and water, have to go to a great deal of trouble to hide the metric measures they use even from themselves. They convert the GPS metric measures to old-style units so they can misinform their passengers.

Personally, I worry about pilots fiddling with conversions on their calculators when they should be flying their plane past a mountain that might be either 29 028 somethings or 8 848 somethings (where's that calculator?), but this won't worry you if you never use ships or planes again. By the way, just a little south-east of this mountain, in Delhi, a Russian plane (flying in metres) almost collided with a British plane (flying in old measures); as I said, I worry.

- 15 If you do get away for your (walking) holiday, don't take a still camera or video equipment as these, too, have been totally metric products since the Kodak company, in the USA, made their decision to use B&W 8 mm film for amateurs in 1910 and their 16 mm color movie film in 1929.
- 16 If you become ill, stay well away from doctors, hospitals, pharmacies and any type of medicines, vitamins, and other supplements. Medicine is all metric, and medications are often dosed in milligrams per kilogram of body mass.
- 17 At home, if you have to do any renovations, be watchful for hidden metric measures.

Some time ago, a friend of mine went to buy some vinyl floor covering. He was shown some material from the UK that was about 6 ft 6 3/4 in wide (My friend reckoned that they were actually 2 metres wide, but the shop person didn't know that). As my friend needed a little less than 2.5 metres he asked for 8 ft 2 1/2 in.

When he asked the price, he found that the assistant had to work it out to figure a price in square yards. Now let's see:  $8' \ 2 \ 1/2'' \ x \ 6' \ 6 \ 3/4'' \div 9 = ?$ 

My friend says the assistant was there, battling with a calculator, for a long, long, time!

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In the meantime, my friend multiplied 2 x 2.5 to get 5 square metres. As I said, be watchful and avoid hidden metric – do the hard yards!

- Of course television and video are out because they use megahertz, another international unit (and you are avoiding electricity, remember). Oh, and the radio waves used for television and radio are specified in metres too, so there goes your radio listening and TV watching as well. In addition, 120 mm CDs and DVDs are out, and so are vinyl records, which have been 250 millimetres or 300 millimetres since the 1930s.
- And so to bed, after you measure it to make sure that it's not really two metres long. Be cautious here, as the contraceptive pill has all of its ingredients measured in micrograms and milligrams, and the quality of condoms is assessed using ultra-sound waves measured in hertz, with the thickness measured in micrometres.
- Given the constraints mentioned in item 19, you will need to consider where you will educate your children, as all schools, in all parts of the World including the USA, teach SI, the International System of Units, which is also known as the modern metric system.

It will be best if you don't measure anything at all. Keep in mind that all the old inch-foot-pound measures are all hidden metric. The USA has defined all of their measures in metric terms since the Mendenhall Order of 1893, and the rest of the English-speaking world has used metric measures to underpin their old units since an agreement made between them in 1959. This means that inches are hidden metric; ounces are hidden metric; pounds are hidden metric; and tons are hidden metric, too.

After all this, you might find it easier to recognise that we all live in a metric world: not because someone arbitrarily decided it; not because it was mandated by governments; but because, over the last two centuries, metric measurements have proved simple in concept and easy to use. So far, this simplicity and ease of use have convinced most individuals, groups, companies, organisations, and all the nations of the world except the USA that metric units are the way to go. Even in the USA, however, it seems that some citizens have trouble recognising the progress that they have already made toward metric and keep wanting to change things back – that's how the Mars Climate Orbiter crashed at a cost of 125 M\$ – but that's another story.

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Contact Pat Naughtin, P O Box 305, Belmont, Geelong, Australia + 61 3 5241 2008

Metric system consultant, writer, and speaker, Pat Naughtin, has helped thousands of people and hundreds of companies upgrade to the modern metric system smoothly, quickly, and so economically that they now save thousands each year when buying, processing, or selling for their businesses. Pat provides services and resources for many different trades, crafts, and professions for commercial, industrial and government metrication leaders in Asia, Europe, and in the USA. Pat's clients include the Australian Government, Google, NASA, NIST, and the metric associations of Canada, the UK, and the USA.

Pat specialises in the modern metric system based on the International System of Units (SI), but he is mostly concerned with the processes that people use for themselves, their groups, their businesses, their industries, and their nations as they go about their inevitable metrication process. See <a href="http://www.metricationmatters.com/">http://www.metricationmatters.com/</a> for more metrication information, contact Pat at <a href="mailto:pat.naughtin@metricationmatters.com">pat.naughtin@metricationmatters.com</a> or subscribe to the free 'Metrication matters' newsletter at <a href="http://www.metricationmatters.com/newsletter/">http://www.metricationmatters.com/newsletter/</a>

