



# METRIC

Metric Commission Canada

MARCH 1984

2nd Class Mail, Registration Pending

ISSN 0822-4242

## ***New definition for the metre***

The General Conference on Weights and Measures, meeting in Paris in late October, adopted a new definition of the metre, the first change or refinement in the description of any of the seven base SI units of measurement in 23 years.

For routine, layperson's use, the metre remains unchanged, but the new definition is vital to scientists making precise measurements in fields such as astrophysics, geology, and others.

The new definition was made possible by "pioneering work" at the National Bureau of Standards (NBS) and according to NBS director Ernst Ambler, is 10 times more accurate than the previous standard.

A metre now is defined as the distance travelled by light in a vacuum during 1/299 792 458th second; the new standard established the speed of light at 299 792 458 metres per second. Using time to define length, according to Ambler, is a long-time scientific goal and the key to the definition's importance.

NBS researchers are working on techniques to define all seven base SI units from fundamental physical measurements.

*From the Metric Reporter of the American Metric Council* 

## **M.U.M.'S THE WORD**

### ***Metric conversion program boon to handling growers shipments***

The Grower, a magazine published by the Ontario Fruit and Vegetable Growers' Association, says that changes in packaging being brought about as part of the metric conversion process will offer significant advantages to the industry.

The process of converting shipping containers to metric dimensions has brought about the M.U.M. program — Metrication, Unitization and Modularization.

Says The Grower: "As cited by industry people, the concept from a total distribution system offers: reduced handling, reduced product damage, better refrigeration, increased productivity, reduced package inventory costs, fewer employee injuries and streamlined distribution."

Industry representatives from across Canada met at a meeting convened by Metric Commission Canada just before the end of 1983 to compare progress reports on the program.

"During 1983," says the magazine, "test packing of Canadian horticultural products occurred at the Ontario Food Terminal in Toronto, in packing houses in the Sherrington/St. Clothilde area of Quebec, the B.C. Fraser Valley and in Mani-


toba. Promising results are coming in from B.C. and Manitoba."

The Grower goes on to say: "The vital element in the total concept of M.U.M. is metrication. With the introduction of five metrically dimensioned master shipping containers close to containers in dimensions currently being used in the industry, proper stacking and improved loading are but two of the advantages in the M.U.M. project."

The M.U.M. program is also being tested in California and on the Canadian West Coast by Safeway, says the magazine, with excellent results.

"Further testing will take place, but it is becoming evident that structural changes in the North American horticulture distribution system have started."

The Grower concludes: "While the U.S. interest in the M.U.M. project is presently supported from an increased production viewpoint, ultimately both Canada and the U.S. will include metrication as the base for international trade packaging."

The Grower is distributed monthly to 11,623 fruit, vegetable and greenhouse growers and industry people, primarily in Ontario. 

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## RETAIL COUNCIL

### Advisory tells grocers stay dual pending metric court decision


Retail Council of Canada has announced that in cooperation with a number of other food distribution associations, it is recommending to food retailers that they continue to advertise grocery products in both metric and imperial units until the law on mandatory enforcement of a single measurement system has been clarified.

It was the Federal Government's intention that dual advertising of imperial and metric measurements should extend through 1982 and 1983 so as to allow the conversion of weight scales on an organized basis and to provide the public with a period of familiarization with metric standards.

The intent was that by December 31, 1983, all weigh scales would be

converted and only metric advertising would be used.

Commenting on the recommendation to extend dual advertising and the metric conversion situation generally, Retail Council president Alasdair McKichan stated: "We are encouraging the trade to take action which will minimize the risk of confusion to customers."

He added: "It is important to recognize that the choice is not between metric and imperial. It is between dual now, eventual metric, or continuing chaos. . . . At some point it will be necessary to have a mandatory, single standard. Until the government is in a position to enforce that standard, it is realistic to continue dual advertising." 

### Aircraft committee groundwork done


The Air Industries Association of Canada has accepted continuing monitoring and coordinating responsibilities for metric conversion in the aircraft and aircraft parts manufacturing industries.

The sector committee recently stood down, having completed its activities to the extent possible for the foreseeable future, laying a solid framework for conversion in the industry.

Because of the longevity of products in the sector, a long conversion period is foreseen which will be in phase with the United States aerospace industry.

In the U.S., the Department of Defence requires that all new defence systems be metric unless inconsistent with other requirements, in order to increase the level of interchangeability for NATO weapons systems.

The Federal Aviation Administration has established a metric policy and published a long-term plan. The trend toward metric has been positive in space flight applications at NASA.

International institutions governing aircraft design and operations, such as ICAO, ISO and NATO are committed to the eventual termination of non-metric units for aviation use. 

### Got problems? Ask 12-year-olds

The Grade 6 students of L.C. Skerry School in Waverley, N.S., recently wrote the editor of the Halifax Mail-Star and the Chronicle Herald to boost the metric system in Nova Scotia.


"We are familiar with and feel comfortable with the metric system," wrote teacher Jean MacGillivray's 26 students, who have been taught entirely in metric since primary school.

"As tomorrow's leaders," said the grade-sixers in their letter, "we can assure you it's much simpler and more practical than the old system."

The children implied in their letter that most grown-ups have not made an honest effort to learn the metric system.

"All changes take time, practice and effort," the kids said.

"If you have difficulty with the metric system, ask most 12-year-olds. We'll help you."

*(Reprinted, in part, from the Halifax Mail-Star. *


### Minister to host metric conference April in Ottawa

A forum on metric conversion and its future directions in Canada is to be hosted in Ottawa on April 13 by the Minister of Consumer and Corporate Affairs, the Hon. Judy Erola.

The Minister will be inviting a broad cross-section of participants, including consumers, industry, the business community, senior citizens and governments to the conference, which is to take place in the capital's new Congress Centre.

The day-long event is to include a number of panel discussions, with participation invited from the delegates.

Representatives from the U.K., U.S., and European Economic Community are also expected to attend.

The Minister will be the principal speaker at a mid-day luncheon as well as taking part in the general discussions during the forum. 



Metric Commission  
Canada

Commission du système  
métrique Canada

Published by  
Metric Commission Canada  
Box 4000  
Ottawa, Ontario  
K1S 5G8

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Manager of all changes of  
address.

Articles may be reprinted  
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credit must be given.

Circulation: 152 000

## Mining industry operations metric

Canada's mining industry has virtually completed the transition to metric in the mining and processing of metallic and non-metallic minerals, and the services fundamental to refining and smelting.

The Mining Association of Canada has now taken over responsibility for handling any residual matters, or enquiries, following the stand-down of the industry sector committee responsible for planning and bringing about conversion.

A 1983 survey indicated that the majority of the mining industry now operates exclusively in metric units with respect to communication between companies.

The survey concluded that 84% of industry respondents operate externally in metric, with 76% using SI units exclusively.

In internal company operations, 53% operate in metric company-wide and on any new projects. Others were planning to complete their conversion when the economy improved, or as suspended production resumed.

The Mining Association of Canada has agreed to respond to any technical or other questions relating to metric conversion in the industry in future, and will make available the Metric Practice Guide for Canadian Mining and Metallurgical Industries to the industry. ↗

## Small business working group has been formed

A Working Group on Small Business has been formed to address the particular needs of small business in conversion to metric, and staged its first meeting in Toronto in January.

The group includes representatives from the Retail Merchants' Association of Canada, the Canadian Organization for Small Business, the Small Business Secretariat of the Department of Regional and Industrial Expansion, the Federal Business Development Bank, the Canadian Federation of Independent Business, and the Canadian Chamber of Commerce. ↗

## HE LIKES METRIC

### ... Considering puncheons, pecks and hogsheads

*The following Letter to the Editor is reprinted from the Uxbridge (Ont.) Times-Journal.*

*"To the Editor:*

To certain PM's, MP's and all the defenders of the Imperial Weight and Measurement System.

As intelligent people, do you know, that under "Linen" how many Yards are in a Cut, Cuts in a Heer, Heers in a Hank and Hanks in a Spindle? Under "Cotton" they talk about Skeins instead of Cuts and Heers.

Do you know the difference in weight between a Bushel of Oats or Wheat? All Bushelweights are approximate. Must be lots of Profit in "Approximate".

How many Pounds are a Stone of Meat or a Chaldron of Flour, a Pig of Ballast, a Pocket of Wheat or a Sack of Coal?

How many Amsses are in a Load of Hay?

How much is a Cord, a Cran, a Last, a Stack, a Trust, a Warp etc.?

How many Gallons are a Firkin, a Kilderkin, a Barrel or Hogshead?

How many Gallons are in a Puncheon, a Butt of Ale, an Anker, a Tierce or a Pipe of Port?

Now, if you can add up — 7 Feet 7 Inches plus 3 Yards 3 Feet 5 Inches plus 4 Inches seven-eighths plus seven-sixteenths" plus  $\frac{3}{4}$ " plus seventeen-thirty-seconds" plus twenty-one-sixty-fourths" — then you are the Cream of the Crop.

Thank goodness, for ordinary people the Dollar is divided into 100 Parts and in Mechanics the Inch in 1000 Parts.

In my 28 years in this country, nobody could tell me the exact number of Feet or Yards in a Mile. And do not forget, there is no Imperium anymore, no ruling of the World.

By the way, I just found out, that 13,200 Herrings make a Cran and 4 Herrings are in a Warp (it does not say, raw or pickled).

If you are in love with the word "Pound", keep it and make it 500 Grams.

So, I am sticking with Metric all the Way.

H. Willers  
Stouffville, Ont. ↗

## MAY CONFERENCE

### Course of future is main ANMC theme

"A Decade of Progress and A Course for the Future" will be the theme of the American National Metric Council's 10th Annual Conference to be held May 20-22 at the Key Bridge Marriott Hotel in Washington, D.C.

The Conference will look at past accomplishments and will establish the groundwork for metric transition efforts in the years to come. A key focus will be ANMC's role in promoting cooperation and partnership between the private and public sectors and in international arenas.

Programming will include detailed examination of metric in the private

sector, government, trade and the general public. Speakers will represent industry, U.S. government, and international organizations.

The Conference follows a successful 10th year for ANMC, with indications that the pace of metric transition is increasing throughout the U.S. economy.

*For information on advance registration, contact Cheryl Cummins, ANMC vice-president and Conference co-ordinator, at 5410 Grosvenor Lane, Bethesda, Maryland. 20814; or call (301) 530-8333. ↗*

## UK REPORT

### *Metric usage in Britain depends on how old you are*

by Geoff Wheatley

*(The writer is a UK expatriate, now a Canadian citizen, who recently revisited Britain. As he sees it, the progress of metric conversion in the UK at the moment is largely a matter of age.)*

When I left the UK to make a new home and a new life in Canada there were 240 pennies to the pound, beer was sold by the pint, and three and a half yards of material were required to produce a three-piece suit.

Miles, poles, perches, feet and inches were the standard tools of measurement created over a thousand years ago and, as far as the British seemed concerned, would continue to be.

The then government had just persuaded the population that economic association with Europe would be a good thing and virtually everyone felt that within a few years those foreigners across the channel would all be converted to good Anglo-Saxons and drink their wine out of half-pint glasses.

As neither my wife, myself or our UK relatives were getting any younger, we decided to spend Christmas 1983 in England to renew old friendships and give Dad his Christmas present in person.

We had heard various rumors that Britain was going metric and counterstatements that the program has been scrapped due to public resistance. I was inclined to believe the latter, as it was hard to imagine an Englishman ordering a litre of "Best Bitter" in the local pub.

My first encounter with UK metrification was within a few hours of landing at Heathrow Airport. My hire car required petrol and as I turned off the motorway to "gas up", the price list at the garage announced one pound eighty pence per gallon, and 40 pence per litre. The self-service pumps also showed the amount delivered in both gallons and litres.

Although the British car that I was driving has a speedometer in both MPH and km/h, all the road signs were still in miles, even on the new highways. In contrast to this, my UK road map was in both miles and kilometres.

The weather reports via radio and television were in Celsius and Fahrenheit, and brief visits to the supermarket showed that this dual system was in use for virtually every item on the shelves, with cash registers showing weight in both pounds and kilograms.

In department stores and shopping plazas, fabrics, shoes, carpets and drapes were being sold in both measurement systems. I purchased a few shirts and a sweater — British made — from display racks that sized in inches and centimetres. Each item had a label giving both measurements.

In a drapery store I was fascinated by a measuring device that showed both square feet and square metres at the same time, thereby enabling the purchaser to clearly understand the amount of material he or she was purchasing in either system. In a carpet shop, the same system was in operation.

Another interesting situation had to do with milk. The milkman still delivers a pint each morning in the traditional milk bottle, yet the supermarkets sell packaged milk in litre containers.

There is a prosperous industry flourishing in the UK, manufacturing all types of conversion aids. Almost everyone we visited had a conversion table firmly fixed to the kitchen wall. Some were simple in design, others were elaborate conversion units featuring electronic readouts at the press of a button. My wife purchased an inexpensive set of kitchen measuring spoons that show both

metric and imperial at a glance. Cost: \$1.25.

In the local pubs a pint was still a pint, but the bottled beer had both metric and imperial on the label. Packaged goods were either in metric or imperial size, but labelled dually. For example, a one pound package of butter also showed the weight in metric, while a one-litre bottle of wine also showed the imperial equivalent.


In supermarkets, liquor bottles were in litres. Canned beer came in pints, half-pints and litres. Curiously, the bitters came primarily in imperial cans, and the lagers in litres.

I wondered about that until a friend pointed out that lager was popular among the younger Britons. In fact, therein lay a capsule summary of the way metric conversion was being accepted in Britain.

Most people under 30, I was told, completely understand and accept metric measurement, because for the past 15 years it has been taught in all UK schools.

People over 30 can cling to the imperial measures if they so choose, but are likely to adapt gradually to metric because both systems are displayed every time they make a purchase.

In a matter of 20 years, it is being foreseen that almost everyone will be fully converted, and the few who are not will represent a minority in the marketplace.

Thus, for Britain, the success of its metric conversion program seems to depend for the moment largely on a question of age. 

### *Tools Program Nears Conclusion*

Canada's assistance program for workers who have to provide their own metric tools as a condition of employment is to be concluded shortly.

The program was set up to help employees who cannot claim tax relief for the purchase of tools needed to work in metric.

The program office is accepting claims for eligible tools purchased during the period from April 1, 1983 to March 31, 1984. Final applica-

tions must be mailed by June 30, 1984.

The back of the current application form CCA-8070 (11-82) has a guide for applicants which gives details of the program and its rules. These forms should be available from any Canada Employment Centre, or may be obtained directly from:

Metric Commission Canada  
Assistance Program  
Workers' Metric Tools  
P.O. Box 4509  
Ottawa, Ontario K1S 5J2 