

METRIC

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METRIC KEY FACTOR

Canadian exports up since conversion start

Canadian export sales rose to \$85 billion in 1982 from \$17 billion in 1970, according to Statistics Canada figures compiled to the end of 1982.

One in every five members of the labor force is now employed in the production of goods for sale outside the country and a number of Canadian firms who have shared in the remarkable growth say that their metric programs have been a key factor in their success abroad.

Three firms who recently received Export Success Awards from the federal government for their role in economic development and job creation are among them.

They include the Versatile Farm Equipment Co. of Winnipeg; Shaver Poultry Breeding Farms of Cambridge, Ont. and Canparts Automotive International Ltd., also of Cambridge.

L.N. Chanasyk, manager of engineering administration for Versatile Farm Equipment, who says that 65% of the company's production is exported, had this comment:

"Metric conversion has helped us in our overseas markets, since specifi-

cations for our equipment are metric and can thus be more easily understood by customers there. The acceptance of metric design in our products has been very good in the U.S. market as well. All new designs of Versatile products are now in the SI system of measure."

Robert Beaupre, vice-president of marketing for Canparts Automotive, says people in the firm are "metric experts"

"In 1980 we made our first shipment of disc brake pads to Kuwait and Iran. Today we ship to over 50 countries. Our market is in Japan, Sweden, Denmark, Iran, Kuwait, and the U.S.A. To export we must

Packaging groups say job is done


Fifteen committees organized by MCC and representing private-sector organizations concerned with converting pre-packaged foods to metric standards have now stood down after completing their work. The remaining tasks will be accomplished by the Working Group on Packaging. *(Continued on p. 4)*

ship and to ship we must provide full documentation — invoices, bills of lading, packing slips, certification of origin. All documentation is in metric.

"The steamship companies, the freight forwarders, all handlers of shipments require documentation in metric — they don't understand pounds and feet."

Metric has even played a role in poultry breeding for export, according to Clifford L. Luce of the Shaver Farms, which claims that three out of every ten eggs consumed around the world come from their breeding stock.

"We export to more than 90 countries," says Luce, "most of which use the metric system. We meet their needs and we have our own in-house metric expert."

"Because we are highly competitive in the movement of our commodity, we operate on a twenty-four-hour clock and utilize computers . . . an indispensable part of our research and development activity. It is far easier for computer application to use metric than to use imperial." 

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CHICAGO SYMPOSIUM

U.S. fastener industry is changing

Members of the aerospace, agricultural, construction, automotive, machinery, and metals industries have been invited to participate in a Fastener Symposium on metric issues to be held March 13-14, 1984 in Chicago, IL, sponsored by the American National Metric Council.

The Fastener Symposium will offer a forum for fastener users, distributors, and producers to discuss issues and concerns in the industry transition to using metric measurements.

"There is a great deal of metric progress and activity in fasteners that affects all sectors of heavy industry and our discussions with industry, association, and government representatives indicated a strong need for this type of forum."

Symposium co-sponsors include the National Fasteners Distributors Association, Industrial Fastener Institute, and Society of Automotive Engineers. Representatives of the US Department of Defense, Boeing Aerospace Company, General Motors Company, and Deere & Company, among others, are involved in program planning for the symposium.

Albert M. Navas, President of ANMC, has said it should not be surprising that metric fasteners command such attention. The fastener industry represents billions of dollars annually. Should current trends in the use of metric fasteners continue, up to half the fastener sales in the US could be metric by 1985.

From another point of view, foreign imports had captured 56% of the US fastener market by 1981. Navas says that in order to compete, the North American manufacturers must address metric issues.

The Industrial Fastener Institute recently published a Metric Fastener Standards Handbook for industry. Canadian members of the Institute include Stelco and Dofasco, who are among 10 Canadian firms now supplying metric fasteners in production lot quantities.

Others include Thomson (Canada) Rivet Co. Ltd., Parmenter & Bulloch, Capital Metal Industries, Linread Canada Ltd., Interlake Steel Products Inc., Robertson-Whitehouse, Industrial Screw and Forge, and Automotive Hardware Ltd.

For program details and registration information on the forthcoming symposium, which will be held at the Sheraton International Hotel at O'Hare Airport in Chicago, interested parties should contact:

Philip Gulak
American National Metric Council
5410 Grosvenor Lane
Bethesda, MD 20814
Tel: (301) 530-8333

Sugar for your coffee? About one teaspoon is 5 mL

Quotable quotes on U.S. conversion

Kathy Klass, Executive Officer, California Consumer Advisory Council — "The best transition to metric for consumers is educating the children at the lower level. People fight any kind of change . . . and children are the best teachers of parents, as the average person isn't ready to go back to school to learn something new."

E. James Tew Jr., Manager, QA Operations, Texas Instruments Inc., Dallas — "In the decade I have been involved with metrication, I have seen progress; I have seen resistance to change". He stated that some of the conversion slowness is due to key business executives' not being aware that metrication 1) can improve productivity; 2) could bring increased customer satisfaction; and 3) will become a non-tariff barrier one of these days when overseas customers begin to enforce their import laws more stringently.

Nicholas T. Babic, Metrication Co-Ordinator, Atlantic-Richfield Co., Los Angeles: "The increased use of a dual-measurement system will increase the pressure to use *only* metric measurements . . . U.S. industry believes that the transition to metric is inevitable."

Reprinted from the USMA Newsletter.

USMA pushing U.S. Congress on conversion dates

The United States Metric Association has called on the U.S. Congress to set final dates for the transition in that country.

In order to ensure the public's best interests were being served, the USMA board of directors adopted a resolution asking Congress to set target dates for the United States to convert to SI.

The resolution is being circulated to all USMA members, who are asked to endorse it and send it to their congressman and senator.



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SI construction easier, better: project manager

A construction project manager who has built three major structures in metric says it's easier, quicker, and more accurate.

Steven King, a project manager for V.K. Mason Construction Ltd. says "it's easier to work with decimals than fractions, and they're a lot more accurate."

As a consequence he says, tolerances are usually finer and the completed building is closer to the way it was originally designed.

King recently completed his third consecutive metric building project, the \$60 million Westin Hotel in Ottawa. The first two were the Toronto Sunnybrook General Hospital addition, and a water treatment plant for the City of Toronto.

Workmen don't have difficulty in switching over to metric measures, says King. Even those brought up on the imperial system find it easier "once they stop converting" and start thinking metric.

The only problems King has encountered in his metric building projects have to do with the fact that some materials are still only available in imperial measures. ↗

ANMC Conference set for Washington

The American National Metric Council has set its 1984 Annual Conference for Washington, D.C. on May 20-22. For further information contact ANMC at 5410 Grosvenor Lane, Bethesda MD 20814. (301) 530-8333. ↗

Fish fillets or steak weighing 500 g will serve three or four adults.

Travelling seminar to assist firefighters

Canada's firefighting services are to be assisted in the conversion to metric by a series of one-day seminars during the first half of 1984.

Three members of the MCC sector committee responsible for Fire Fighting Equipment and Operation will conduct the sessions with key training personnel from various provinces.

A.L. Dupuis, chairman of the firefighters' committee, says "It obviously isn't possible for us to train every fire department in the country, but if we do it through their provincial training people, then we'll be accomplishing our purpose."

Dupuis is working through the provincial fire marshals in each province to set up the program, which is likely to begin this month and be completed by June.

Dupuis is Chief of Fire Advisory Services with the Office of the Ontario Fire Marshal, and has already completed a session for training officers in Ontario, which he reports as having been highly successful.

Dave Kemp, fire chief in Niagara Falls, Ont., and Tom Powell, fire chief of Fredericton, N.B., are assisting Dupuis in the training sessions. Both are also members of the firefighters' sector committee.

Conversion of firefighting services covers everything from aerial ladders to breathing apparatus to pumping water, says Dupuis. As well as linear measurements, firemen must deal with hydraulic, water and air pressure in their work.

That's one area where rookie firemen probably have a foot up on the ladder ahead of veterans, says Dupuis, especially if they're recent graduates of a firefighting school.

As an example, the Ontario Firefighting College in Gravenhurst has been totally metric since January of 1981. ↗

Centre helps Quebec business in metric conversion

Quebec businesses converting to metric over the past five years have been able to obtain assistance from the "Quebec Industrial Research Centre", located in Sainte-Foy, just outside Quebec City.

Many businesses have asked the centre to set up information and training sessions for their employees and to help in submitting tender applications in metric dimensions.

Enquiries at the centre range all the way from conversion factors to detailed technical questions on pieces of equipment.

Further information may be obtained from:

Centre de Recherche Industrielle du Québec
Bureau métrique
333, rue Franquet
C.P. 9038, Sainte-Foy
Québec
G1V 4C7 ↗

If the temperature is -30° C, it's a really cold day.

U.S. Metric Office says press views have changed

U.S. media attitudes towards conversion have changed says Dr. David T. Goldman of the United States Office of Metric Conversion.

At the time of dissolution of the U.S. Metric Board, the media attitude was that metric conversion was not going to occur in the United States. Goldman said "I think the media attitude these days is, we're going metric slowly."

Goldman was speaking at the United States Metric Association's annual meeting and conference in Burlingame, California. ↗

ANOTHER SIDE:

Professor's surprising survey reinforced his metric idea

Trevor Hodge, a professor at Ottawa's Carleton University, says he's become a stronger advocate of metric since he surveyed some of his students.

"Being a university professor, I simply took one of my classes as a random sample. The course they were taking was about something quite different. I put in a little quiz on imperial measures as part of the end of term exam. Oh, no question of *having* to answer it of course, of it affecting grades. I explained it is simply for interest's sake."

"So, suppose you pick up a packet of custard in a supermarket, and the recipe says to add four fluid ounces of milk. Right. I pick up a quart carton and how much do I put in? Half the carton? A third? Just a little bit maybe? How many ounces in a quart? Well, the answers were: various figures, three 'don't know's, and one 'it depends on the density of the liquid'. Let's just say that it doesn't sound to me like a reliable way of making custard.


"Or, would you like to know the size of an acre? How many square feet? Half the class couldn't even make a wild guess! The heroes who made the valiant attempt ranged all the way from 2,000 down to nine, and even four. Now, nine and four square feet — that gives you an acre the size of a small hearth rug. And both those answers were from students who had learned imperial, not metric, in school.

"Feet in a mile? Oh yes, as you'd expect they knew that one better. Out of a class of 27, five got it right. And three of the five had been trained in metric. The rest ran from fifty feet in a mile to 21,000.

"Pounds in a ton? Half said 2,000, but they ask: 'Do you mean a British ton or an American ton?', and I said: 'I mean whichever we use here in Canada', which caused a lot of furrows on the brow.

"You know, one thing to be said for a kilo whatever it is at least it's the same thing everywhere.

"Now, I'm not telling this story to make fun of my students. They're intelligent people, they're good guys. And I've no reason to believe they were pro or anti-metric. I suppose there's some of both, but I don't know which. And anyway, they didn't know I was going to ask them all this.

"But what it does show is that even imperial measures are not particularly well known even things like fluid ounces that people are using in recipes every day. Apart from farmers and real estate people, nobody has any idea what an acre is. 

1 km (kilometre) = 1000 m (metres).

Breaking the Ice

Burrard Yarrows Corporation, Canada's largest west coast shipyard, has delivered two sister-ship icebreakers to Gulf Resources Canada. They will serve in the hostile Beaufort Sea.


The *Terry Fox* and *Kalvik*, the most powerful privately-owned icebreakers in the world, were designed to metric specifications by naval architects, German and Milne of Montreal. They are 88 metres in length, 17.5 metres in the beam, have a draught of 8 metres, a dead-weight tonnage of 2 200 and carry a crew of 18. Electrical power is provided by two 750 kW generators and a 200 kW emergency generator is also

Roast pork in an oven set at 160°C (325°C) for 65 to 75 min/kg.

Packaging groups say job is done

(cont. from page one)


A high level of conversion has been achieved in many of the food sectors for which the committees are responsible, particularly since the Consumer Labelling and Packaging Act now requires metric information on labels.

The committees dealt with a broad range of products, including cold and hot cereals, pasta products, processed potato products and other snack foods, salt, complete dinners, spices, extracts and food coloring, chocolate drinks and cocoa, popping corn, rice, dried and cut fruit and baking aids. 

An Olympic swimming pool contains almost 14 000 000 L (litres) of water.

installed. Designated Arctic class 4, they have the ability to operate at a constant speed through ice with a thickness of 1.22 metres.

The ships will extend the exploration season in the Beaufort Sea by several months. Gulf Resources will now be able to continue operations in the Arctic waters from April to December instead of the 80-100 days of past seasons.

The vessels were built to the highest class of Lloyd's Register of Shipping and to Arctic Shipping Pollution Regulations which are now written in the SI system of units. These meet the approval of the Canadian Coast Guard's ship safety branch. 

Rainfall is measured in millimetres. Three millimetres is a light shower.
