Truck load monitor

A Winnipeg firm is marketing Overload Alert, a device designed to monitor a truck's suspension springs to determine whether the vehicle is overloaded. The company says its device can be preset to a vehicle's maximum legal load; if compression of the springs reveals a load in excess of the limit, a warning buzzer and light are triggered in the truck cab. In larger vehicles the system can be used to better position a load.

Overload Alert is sold by Michael Ede Management Ltd., P.O. Box 3603, Postal Station E, Winnipeg, Manitoba R2W 3R4.

Harnessing the sun

The National Research Council (NRC) is spending about $400,000 a year to support research teams striving to lower the cost of making solar cells.

The solar cell, when exposed to rays from the sun, produces electricity. A typical cell has no moving parts, consumes no fuel, produces no pollution, and can be made out of one of the most abundant elements in the crust of the earth.

Much of the world's international telecommunications traffic is now carried by satellites powered by solar cells. Speculations on the future include the possibility of using giant orbiting arrays of solar cells to collect power for transmission down to earth.

It is possible, albeit exorbitantly expensive, to mount these space-age devices on a roof, thus providing a home with its own electrical power source, independent of the mains. Because of their expense, solar cells are now made only in relatively small numbers, to provide electricity where no other source can be tapped: in space, and at remote locations on earth.

However, the cost of electricity generated directly from the sun has been quartered in the last two years. Today, in Canada, it costs about $20 to produce one watt of power during peak generating conditions – noon on a sunny day – and research teams here, and in a number of countries around the world, are working towards an ambitious goal: to reduce the price to 50 cents *per* peak watt by 1986. At that price, a solar cell array would be about as cheap *per* unit area as a highway billboard, and a $10,000-investment would buy a system which could compete with conventional sources in providing homes with electrical power.

A research team funded by NRC and headed by Dr. Raye Thomas of Carleton University is striving to make a solar cell – essentially a sandwich of layered semiconducting materials – as cheaply and as efficiently as possible.

This team is exploring ways to use inexpensive grades of silicon, processed at low temperatures. One of its ideas, the so-called inversion layer cell, eliminates the need for a high-temperature furnace; its thin, upper, semiconducting layer is created by simply allowing a drop of silicon dioxide to spread over the surface of a crystal wafer spinning in a vacuum.

Though generally only about half as efficient as single crystals in converting sunshine to electricity, thin films made of many small crystals offer substantial savings in a production line.

Metrication enters final lap

Canada's conversion to the metric system of weights and measures enters a crucial stage this year, with metric measurements being applied to all foodstuffs and to home construction, reports *Canadian Scene.* By January 1, scales in all food retail establishments will be converted from ounces and pounds to grams and kilograms at a cost estimated at more than $100 million. After that date, all bulk products will be sold only in metric weights.

To prepare for the change, three cities have been chosen as pilot areas, and will start their conversion on July 1. The experience in Kamloops, British Columbia, Peterborough, Ontario, and Sherbrooke, Quebec, will provide retailers and the federal Metric Commission with an idea of how customers will respond to the total conversion to metric.

Shoppers who have become familiar with packaged goods being labelled in metric as well as imperial measurements are likely to be surprised at having to buy their groceries exclusively in metric. Kenneth Gadd of the Canadian Federation of Retail Grocers, believes that many shoppers will feel they are being swindled. But, he says, "they're going to be paying the same price for the same amount. The Metric Commission is quite clear on that point".

The switch to metric will not be as definite as far as housing goes. The Central Mortgage and Housing Corporation has announced that it will not accept any plans for new housing unless they are in metric measurements exclusively. The Corporation has only a minor role in home building, but its stand will be backed by a number of municipalities which are expected to insist on metric measurements for all building projects. According to J.R. Bullock, the vice-president of Cadillac-Fairview, a major real estate company, most houses in Canada will be built in metric by the end of this year, but it will be some time before commercial space is quoted in price *per* square metre rather than *per* square foot.

Ryerson launches tabloid

Connections, a new tabloid newspaper about Canada and the Third World, was recently launched by the Third World Centre of Ryerson Polytechnical Institute in Toronto. The paper reports on the development movement across Canada, with emphasis on practical aid programs which involve professional and occupational groups.

Published every two months, the 16-page paper is the visible part of a training project to turn out journalists better informed about development. The 20-member Development Journalism Group, which includes students attending Ryerson from the Third World, meets in weekly sessions run by the centre in downtown Toronto.

Like *Connections,* the Third World Centre is itself an educational innovation, set up in 1976 with the backing of Ryerson's Academic Council. In the past year the centre's emphasis has broadened from strictly curriculum concerns and events within Ryerson, to programs involving professional groups outside the institute.

One project funded by the Canadian International Development Agency (CIDA) is a workshop series for dietitians and nutritionists in industry and government. Major activities lined up for 1979-80 will focus on technology transfer and Canada's tourism links with the Caribbean.

CIDA provided a grant of $10,000 to help launch the newspaper.

The address of the publication is: *Connections,* Third World Centre, Room M210, Ryerson Polytechnical Institute, 50 Gould St., Toronto, M5B 1E8.