

GENERAL SCIENCE

Metric System Proposed

► UNITED STATES housewives in the future will go to the grocery store and buy a liter of milk instead of a quart and a kilogram of meat instead of a pound, if Congress passes legislation adopting the metric system.

How a change from the present centuries-old system of weights and measures to the metric system would affect life in the U. S. is the subject on which House hearings began June 28.

The 12-inch ruler, the yardstick and the pound scale would become as outdated as the horse and buggy if the metric system were adopted. Some opposition is expected due to the natural resistance to change.

Nearly all U. S. research and scientific organizations have been using the metric system for years and strongly recommend it to avoid the "double standard" of weights and measures. The National Bureau of Standards has taken a "middle-of-the-road" policy in the discussion, waiting for Congressional action, if any, on the proposed conversion.

"Perhaps the greatest resistance to the proposed change would come from manufacturers and other commercial businesses," a National Bureau of Standards scientist said. Engineers use thousandths of an inch in calibrating industrial tools and land is measured in standard feet and acres, the scientist noted.

The U. S. system of weights and measures is currently used in most English-speaking countries. It was first introduced in England in the 13th century by King Edward I of England who thought a new measurement was needed to replace the arm or foot length as a measurement.

The metric system was developed toward the end of the 18th century and was adopted by the French Government in 1793. It was based on the meter, which was then one ten-millionth of an imaginary straight line drawn on the earth's surface from the North Pole through Paris to the equator. Today the meter is based on one wavelength of light of krypton, an inert gas.

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PUBLIC SAFETY

Simplify Survival Care

► TRAINING IN SURVIVAL CARE needs to be modified "from a nice-to-know basis to a need-to-know requirement," with theory and refinements thrown out the window, the National Conference on Disaster Medical Care was told in New York.

Col. Don S. Wenger of the U.S. Air Force surgeon general's office said present first aid training is too complicated and "seems to have fallen way short of the mark" when applied to actual disaster conditions. He said mass casualties from a nuclear attack would have to be treated by laymen, since few physicians will be available, functional or in the right place.

Col. Wenger therefore believes everyone should be taught "four essential items":

First: Stop bleeding. A bandage over a bleeding wound usually is all that is necessary. Tourniquets are rarely needed. Since it may be hours or days before the patient reaches a physician, "the use of a tourniquet (under mass casualty conditions) means the loss of a limb."

Second: Maintain effective respiration. Close sucking chest wounds "just like you would plug a hole in a leaking boat." Maintain airways by pulling out a tongue or a slipping denture. Keep patients from "drowning themselves in blood or secretions by positioning the wounded man so these fluids cannot accumulate in the air passages."

Third: Splint a broken bone where the patient lies, without moving it. Try to make it look like the other uninjured side, and splint it so it cannot wiggle. Instruction that goes much beyond this "goes beyond the layman's ability to understand, and also, in times of stress, to remember."

Fourth: Handle injured people properly. "Please note I said people, not injuries. A word of reassurance, positioning for comfort, and careful movement of an injured patient may well make the difference between inviting or preventing shock," Col. Wenger said.

Col. Wenger said most first aid courses put undue stress on shock—a subject that the medical profession itself does not completely understand.

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METEOROLOGY

Nuclear Battery Powers Weather Transmitter

► A NEW WEATHER transmitter powered by a nuclear battery will send weather information from the North Pole for the next ten years.

Dr. Glenn T. Seaborg, Atomic Energy Commission chairman, pushed a button in Washington, D. C., and received weather information from the station, now located at the Martin Company, near Baltimore.

The battery powering the transmitter is similar to the one inside the earth-circling Transit IV-A satellite. In the navigation satellite, the battery's power is used for sending radio signals back to earth.

The Transit nuclear battery uses plutonium-238, whereas the weather station's five-watt battery is powered by radioactive strontium titanate. The AEC said this battery will not need any maintenance and will last for at least ten years, making it extremely well suited for a weather station in such an inaccessible place as the North

Pole. The transmitter is scheduled to be installed at the pole during this summer.

If this weather station proves successful, more may be placed in other isolated areas, difficult to reach and where no one lives.

The power source is enclosed in a container that should last the life of the battery. However, even if it were broken open, the strontium titanate is insoluble and could not be absorbed by water and plants and ultimately animals and humans. Therefore there should be no potential danger from the nuclear fuel.

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NUCLEAR WEATHER STATION

TECHNOLOGY

New Auto Safety Signals Brighter in Daylight

► A "DUAL INTENSITY" lighting system for rear turn and stop signals, designed to increase their daytime visibility without making them too bright at night, is expected to be adopted by U.S. automobile manufacturers as soon as preliminary work is completed.

The new signals will be two to four times brighter in daylight than those now in use, but the rear signal brightness will be lowered when headlights are turned on. A research group from the Automobile Manufacturers Association in Detroit developed prototype units in cooperation with U.S. lamp manufacturers.

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