

Telidon's caption system to help the deaf

A government-industry group will examine the problem of delivery of television services to the hearing impaired and recommend the best approach to the introduction of "closed captioning" in Canada, Minister of Communications Francis Fox has announced.

The group has been set up by the Canadian Videotex Consultative Committee (CVCC) which is looking at the introduction of videotex (Telidon) services in Canada.

With closed captioning, a text — similar to subtitles used for foreign-language films — is transmitted on air or by cable but appears on the screen only if the viewer's TV set is equipped with a special decoder device.

The sub-committee will consider the size of the potential Canadian market for

a captioning decoder; the time frame for availability of terminal and TV broadcasting equipment; the cost of providing captions and ways of sharing these costs.

The sub-committee will also examine all technological options for delivery of captioning and other services. These include: open captioning, available through a cable converter on certain stations and not requiring a decoder; a mini Telidon terminal, basically limited to the captioning function; and accelerated development of a full Telidon system including captioning.

Telidon

Telidon, the Canadian videotex/teletext technology developed by the Department of Communications, will, in its full form, be capable of providing captions in

any language, along with the use of colour and graphics to enhance their comprehensibility, as well as a range of other interactive TV services. Full broadcast-mode Telidon is expected to be available commercially in the next one to three years.

In the United States, a closed captioning service based on a different technology is now being introduced but the decoder is not expected to be generally available in Canada before 1981.

Mr. Fox said that the Department of Communications has been discussing the establishment of a Canadian captioning centre to serve broadcasters with the National Film Board and the Department of National Health and Welfare. TV Ontario, the first organization to conduct a field trial of broadcast-mode Telidon, has also been carrying out experiments on captioning.

Device may cut fuel consumption

The energy consumption of vehicles in the future could be reduced by half as a result of the work of two researchers at the University of Ottawa.

Ralph Flanagan and Mike Munro of the faculty of mechanical engineering have developed a mechanical flywheel which would form part of a new type of power unit installed in buses, taxis and cars.

These new power units would make less noise, be more economical and create less air pollution. The technique could also be applied to electric motors.

Flanagan's and Munro's work is based on the following principle, which has been known for some years: a flywheel installed in a transmission acts as a reservoir of energy so that power can travel from the engine to the wheels, from the engine to the flywheel and from the wheels to the flywheel, whereas in a conventional vehicle, engine power travels only in one direction.

The flywheel can store energy when it is not needed by the vehicle, such as when it is going downhill, and can release it during starting and acceleration so that the engine does not have to work harder.

The two researchers are trying to find the safest, most effective and least expensive way to manufacture the energy-storing flywheel on a large scale. Plans call for a wheel measuring 65 centimetres (26 inches) in diameter, weighing ap-

proximately 30 kilograms (66 pounds), spinning at a rate of some 22,000 revolutions a minute and producing more than 100 horsepower. For the moment, resin-coated fibreglass is being used, but tests using Kevlar fibre and carbon fibres will also be conducted.

If the work produces good results,

vehicles may be equipped with engines that run at the most efficient rate, without any engine throb, and without a cloud of gas escaping through the exhaust pipe when the car accelerates.

A prototype of a vehicle equipped with a flywheel could be built within five or ten years, say Flanagan and Munro.



Ralph Flanagan and Mike Munro, researchers at the University of Ottawa, showing a ring made of fibreglass and epoxy.