

250 miles of the border.

The interim arrangement will be reviewed, and, if necessary, its terms amended in approximately 12 months after the results of a joint study concerning anomalous radio-wave propagation in the border areas are available.

### Typing tool for the handicapped

A communication device called OCCUR (Optically-Controlled Communication Unit for Rehabilitation) was developed some time ago in the Medical Engineering Section of the Division of Electrical Engineering of the National Research Council. This equipment enables a patient without hand-function to type. The patient wears a light-beam projector on a head-band or eyeglass frame. The beam is aimed at an array of symbols. When it is held on a particular symbol for one second, it is automatically typed.

This equipment has been sent to the Massachusetts Institute of Technology for evaluation by a team of experts. The subject will be an adult quadriplegic who cannot use her arms or hands, but has reasonably good control of her head movements. She is said to be anxious to write, and to be an ideal user of the OCCUR. The MIT group, including engineers, physicians and therapists, will report its decision after an extended test with the patient.

### Surplus wood becomes energy

Methanol (wood alcohol) to help power automobiles and other forms of equipment could be produced in large quantities from Canada's surplus forest materials, according to a preliminary report released recently by federal Fisheries and Environment Minister Roméo LeBlanc. Entitled *An Economic Pre-feasibility Study: Large-Scale Methanol Fuel Production from Surplus Canadian Forest Biomass*, the document was prepared by InterGroup Consulting Economists Ltd. of Winnipeg for the Environmental Management Service of Fisheries and Environment Canada.

The report shows that, with favourable tax treatment, methanol could now be manufactured profitably at a price

competitive with that of gasoline.

The "surplus forest biomass" referred to in the report includes trees available as part of the annual allowable cut from Canada's forests but not expected to be used by the year 2000. It also includes species regarded as unsuitable for conventional forestry operations. Wood residues, such as slash from harvesting, bark and sawdust, which are normally viewed as wastes by the industry, are also suitable for methanol production.

Methanol can be used alone or as a blend with gasoline. Unblended, it would require basic-design changes in motors, but in blends of up to 20 per cent only minor, inexpensive alterations are necessary.

On the basis of a blend of 15 percent methanol with 85 percent gasoline, the report estimates that there is more than sufficient surplus forest material available to meet Canada's projected motor-fuel requirements at the end of this century.

### Pollution reduced

The blended fuel promises a substantial reduction in pollutant emission — an environmental aspect seen as a key additional reason for phasing methanol into the present liquid-fuel systems.

InterGroup foresees prospects in methanol production for a major new Canadian industry that could bring substantial regional development in many rural areas and up to 40,000 new jobs. The report indicates that production of 5 billion gallons of methanol annually is feasible. This would lead to an \$800-million annual saving in foreign-exchange expenditures — funds that would normally be required for petroleum purchases from abroad.

Methanol, produced from renewable resources, could be expected to sustain supplies of liquid fuels over the long haul, with consequent lessening of pressures on non-renewable fossil fuels.

Besides indicating the potential of methanol for increasing Canadian energy security and self-reliance, the report suggests that a domestic methanol industry could benefit forest-management. The report further indicates that a methanol industry would enable provinces to produce more of their own energy.

### Commonwealth expedition

On February 1, a group of over 100 Canadians left Vancouver on the first leg of the Commonwealth Expedition, a 30,000-mile journey across Asia. Known as "Comex 8", this eighth expedition is designed to achieve, "through the one-to-one contact of ordinary citizens, some progress...toward a more harmonious world." The Comex organization, based in London, England, unabashedly admits that its aims are idealistic. However, in the words of its officials: "Comex has never claimed to succeed, only to try. Each expedition improves a little."

Comex sees its impact primarily in its size. In addition to seven contingents from various parts of Britain, overseas contingents have joined from Canada, India and Singapore. In seven previous expeditions over ten years, more than 1,600 men and women have participated, representing the same Commonwealth nations that are again participating this year.

The Canadian group has received assistance from several quarters. Through the kindness of the Toronto Transit Commission, 12 volunteer bus-drivers from the Metro Toronto area, who underwent a special training program in the handling of heavy vehicles before departure, will be driving the group's 12 silver buses. Canadian companies have made donations of supplies to Comex. On their first night in Europe, the travelers stayed at the Canadian Forces Base at Lahr, Germany.

Comex 8 will follow roughly the same route as the first Comex expedition: through Turkey, Iran, Afghanistan and Pakistan, as far as Karnatka and the Nilgiri Hills, in South India. If past journeys are any indication, the Canadian group will find itself answering questions about Canada; their participation in Comex 8 will itself be an answer as to how ordinary Canadians feel about their Commonwealth friends and neighbours.

All contingents underwent special training from February 2 to 12. The expedition itself will last until June 3, when the group will return to London to participate in a special service at Wells Cathedral in Glastonbury and other events.