

sometimes give rise to disagreement between governments. Both the Helsinki Final Act and the Madrid Concluding Document point out that respect for human rights and fundamental freedoms is an essential factor in the search for the peace, justice and well-being necessary to ensure the development of friendly relations and co-operation among us. The same recognition is enshrined in the Charter of the United Nations. These assertions reflect the fact that a world that is not increasingly humane is unlikely to be increasingly safe, or even, in the long run, more prosperous. This is why human rights are, and will stay, on the international agenda....

Despite the many things which our CSCE countries share, we all have different cultural traditions and historical experience, and these inevitably have affected and will affect our value systems in different ways. Ours is not a monolithic world, nor should it be.

But these differences do not absolve us of the commitment we each made in Helsinki and Madrid. Nor can they deter us from our task of seeking over time to ensure that progress on respect for human rights — whether civil, political, cultural, economic or social — is made in all our countries. I am convinced that national boundaries can never and should never insulate any of us from the natural concern of human being for human being. This is especially so among a group of countries whose destinies have been so closely interlinked, and whose populations have so many ethnic, cultural, religious and intellectual traditions in common.

Nor must we forget that our journey in search of greater respect for human rights is already well begun. There already exists an impressive body of legally binding United Nations instruments on human rights. We have all freely subscribed to the painstakingly



Representatives of the 35 countries at the opening of the two-week preparatory meetings prior to the CSCE conference in Ottawa.

drafted human rights commitments in the Helsinki Final Act and Madrid Document. Many of the participating states are members of regional groupings which have developed their own sophisticated human rights machinery. We cannot now halt or turn back on our road, even if the way ahead looks long and our visions of what the final destination should look like may vary. Given the importance of human rights, and the serious concerns which our citizens continue to manifest about their implementation both at home and abroad, we must doggedly seek to improve our implementation, strengthen our commitment, and intensify our dialogue.

...Canada sees this meeting as a valuable opportunity which must not be lost to

give impetus to the process of improving fulfillment of our human rights and humanitarian commitments. If Ottawa can provide momentum which will help at Berne, Vienna and beyond, it will indeed have achieved something positive. It will also do much to give us a positive perspective of the tenth anniversary of the Helsinki Final Act, which we observe this summer.

Energy storage system tests

Ontario Bus Industries Inc. of Mississauga, Ontario has received a contract to retrofit a municipal transit bus to test a new hydraulic kinetic energy storage system that can reduce fuel consumption, reduce vehicle emissions, reduce brake lining wear and increase the acceleration of a bus.

The regenerative braking system was designed by Bill Heggie and developed by the National Research Council (NRC) of Canada. The hydraulic system differs from high-tech flywheel systems used to store and transfer energy to a vehicle's power train.

The system operates by a device called a hydro-pneumatic accumulator that is a high-pressure vessel containing a piston. On one side of the piston is nitrogen gas, pressurized to 3 000 pounds per square inch at rest. On the other side is hydraulic oil.

When the driver starts to brake, hydraulic oil is pumped into the vessel, forcing up the piston and increasing the nitrogen's compression to 5 000 pounds per square inch and storing some of the kinetic energy.

The hydraulic pump becomes a motor during acceleration, modulated by the micro-processor. The accelerator and brake pedals are hooked to the computer, which controls the speed lever on the bus's engine and the hydraulic system, blending the two to provide the correct torque for the rear axle drive train.

As the piston in the hydraulic accumulator drops, the pressure of the gas decreases and the energy is imparted to the drive train, reducing the amount of work for the engine.

"The concept of storing and reusing a vehicle's kinetic energy is not new but what had been lacking is a practical way of doing so," said Tony Davis, associate research officer at NRC's mechanical engineering division.

Mr. Davis estimates that the hydraulic system will result in a 27 per cent fuel saving and a corresponding reduction of emissions. The cost of a unit is difficult to estimate because it is not in commercial production, but buying such a unit and retrofitting a bus would cost between \$10 000 and \$20 000, he said.



Minister of External Relations Monique Vézina (right) with CSCE Executive Secretary Louis Rogers at a meeting to set the agenda for the human rights conference.