

Nuclear Energy and World Peace

An address by the Secretary of State for External Affairs of Canada, The Honourable Mitchell Sharp, Fourth International Conference on the peaceful uses of atomic energy, Geneva. It is an honour for me and for my country that I should be the first foreign minister to address one of these important conferences. Canada has a long experience in the development of the peaceful uses of nuclear energy, going back to the late 1940s. The decision to concentrate our resources on this aspect of nuclear science is one we have never regretted and that through the years has enjoyed the support of an overwhelming majority of the Canadian people.



Sixteen years have passed since the first of these conferences opened in this hall. That first conference in 1955 caught the attention of the world and gave rise to great expectations. Until then the words "atomic energy" brought to mind only the mushroom cloud, the firestorm and the helplessness of man in face of this new catastrophic weapon. Until 1955 only a few scientists knew of the technical accomplishments and positive possibilities that had been shrouded in secrecy. It was here, in this Palais des Nations, that the shrouds were torn away and the world saw that man could use his new knowledge and this new power source as well for his betterment as for his destruction.

The new expectations of 1955 were balanced, perhaps overbalanced, by man's continuing fear of the nuclear weapons race. The public heard about the more fascinating uses of isotopes and about the prospects for megawatts of electrical power, generated by atomic energy. But for most of the next decade much more was heard about megatons and megadeaths than about megawatts. Fall-out was the new plague to be feared and ICBMs were targetted on many of the world's great cities and still are. To the age-old fears of war and oppression was added a new fear, of instant widespread destruction brought about by the pressure of a finger on a button, bringing into doubt the capacity of statesmanship and diplomacy to keep the peace.

In more recent years, our fears seem to have diminished. This is the normal human reaction to an ever-present threat; the farmer who tills the slopes of a volcano year after year learns to stop worrying about an eruption that may never come. Our fears have been lulled by our recognition that the two great military powers of the world are for the time being in a state of equilibrium, an equilibrium that neither can disrupt without risking its own and possibly mankind's destruction.

Canada welcomes the initiatives taken by the United States and the Soviet Union towards strategic arms limitation, the SALT talks. The two nuclear powers have begun to carry out their obligations under Article VI of the Non-Proliferation Treaty. The task they have undertaken is both complex and difficult. The joint announcement by the United States and the Soviet Union on May 20 last, that they had reached an understanding in principle to concentrate this year on working out an agreement for the limitation of the deployment of anti-ballistic missile systems and that together with this ABM systems agreement they would agree on certain measures with respect to the limitation of offensive strategic weapons, is heartening evidence of progress. We shall all watch with eager anticipation their efforts to translate this understanding into concrete agreements in the coming months. It is to be hoped that the SALT agreements will include measures to curtail the nuclear arms race in its qualitative as well as its quantitative aspects.

The Non-Proliferation Treaty, which came into force on March 5, 1970, and the safeguarding procedures that have been recently worked out by the International Atomic Energy Agency's Safeguards Committee offer some hope that the further spread of nuclear weapons will be limited. The solemn declarations of states party to the Treaty to renounce this kind of military force and their agreement to allow international personnel to inspect their nuclear installations justify a cautious optimism. There are, however, states that have not signed the Treaty, and its effectiveness will be diminished if some important nuclear and so-called "near-nuclear" nations continue to stand aside. I am pleased to announce today that our negotiations are proceeding favourably and that Canada expects to conclude the Safeguards Agreement with the Agency before the end of the year.

The measure of confidence arising out of the Non-Proliferation Treaty will be strengthened if it is brought into smooth and effective operation. The states that have renounced nuclear weapons have done so in the belief that their own interests are best served by this renunciation; they recognize that they have less to fear from others when they show that others have nothing to fear from them. The mutual trust and confidence born of this renunciation will endure only to the extent that these same states now co-operate with the International Atomic Energy Agency and its inspectors in the operation of safeguards.

All of us must keep carefully audited records of our production, movement and consumption of fissionable materials if we are to feel confident that we have good internal control. The records that we need for good housekeeping at home fulfil most, if not all, of the requirements for international inspection. For this reason, I do not believe that safeguards impose a great new burden. I know that some organizations fear that in submitting to detailed inspections their commercial secrets might be compromised, but the real commercial secrets lie in unaffected areas, such as the design and manufacture of components, and these fears are exaggerated. It is now in the interests of each state to be generous in its co-operation with the Agency's inspectorate and to demonstrate to the rest of the world community that its intentions are wholly peaceful.

The peace of the world may not be quite as precarious as it was a few years ago, but the dangers are still real. The Moscow Partial Test Ban Treaty of 1963 has stopped many-but by no means all-of the nuclear explosions that contaminate our atmosphere. To some extent this Treaty can be looked upon as a major public health measure rather than as arms control. Our newspapers no longer give us those daily fall-out readings to remind us that nations are developing nuclear weapons to even higher levels of effectiveness. But the testing goes on underground-this kind of activity has accelerated since the signing of the Partial Test Ban-and the development of ever more sophisticated nuclear weapons continues.

With these realities in mind, many states of the world, including Canada, have concluded that the time is ripe for a renewed and determined effort to achieve a ban on underground nuclear tests as an extension of the Partial Test Ban of 1963. Seismological investigation, investment in improved facilities, and the possibility of international co-operation in seismic data exchange have all begun to give grounds for believing that adequate seismological methods of discriminating between underground nuclear explosions and natural seismic events can be found. Problems and ambiguities remain-particularly with explosions of extremely low yield, where verification trails off into the realm of the improbable. But the potential for seismological identification has sharply narrowed and made more manageable the issue of on-site inspections that has for too long bedevilled efforts to achieve an underground test ban.

The verification problem is in the last analysis a political rather than a technical question, and in our view, as well as that of a very large number of non-nuclear nations, the time has come for the two major nuclear powers to take up their efforts to resolve this problem where they left off eight years ago. At the same time, we should not ignore the desirability of all nuclear powers adhering to the Moscow Treaty and joining with others in an effort that would lead to a complete ban on all nuclear tests. Until such a ban can be reached I urge the two major nuclear powers to scale down their underground tests, starting with the biggest.

As I address you today I am aware—uneasily aware—of the fact that a quarter of mankind, the people of China, is unrepresented amongst us. I accept the assurance of Mr. Chou en Lai that Chinese intentions are peaceful but I am sure we will all be happier when the representatives of that ancient civilization and powerful modern state are taking part in our deliberations rather than observing them in silence. Canada will do all it can to ensure that this is the last conference on nuclear energy in which a quarter of mankind—and a nuclear power—goes unrepresented.

In the sixteen years since our first conference in 1955, nuclear scientists and engineers have forged ahead. In most situations, large quantities of electricity can now be produced by the fission of uranium as cheaply as by burning coal or oil. Fears of a world energy crisis have been postponed, perhaps for centuries. It is now our task to apply the technology that has been developed to bring to all men a supply of energy sufficient to meet their needs. The technology is ready, the world needs electricity, and we can expect to see a continuing shift away from new fossil-fuel stations toward new nuclear stations.

A great and exhausting debate has been raging between those who question the safety of nuclear power plants and those who defend them. The emotion generated by this discussion must not be allowed to conceal the essential facts of the situation. The nuclear industry has an outstanding record of safe operation. No other industry-and this for obvious reasonshas been as conscious of its obligations to protect its workers, the public and the environment itself. In a world in which everyone every day is exposed to innumerable hazards, we must keep a sense of proportion. Man would be foolish indeed to deny himself a source of energy that he sorely needs. This planet has yielded up the fossil fuels that permitted us to launch our industries. But fossil fuels cannot sustain us through the centuries, and I say this in the full realization that mankind may have to learn to limit its energy consumption. When we consider the risks of nuclear power, we must also weigh against them the risks that will arise if we turn

away from nuclear power. Not only the risks that arise from the alternatives that we can temporarily employ—coal, oil and gas—but also the risks that would arise were the nations, facing a global shortage of energy, to come into conflict over the sharing of what was left.

I do not wish to be misunderstood on this question. I do not suggest that problems do not exist or that they are capable of simple solutions rather that they are capable of management at an acceptable cost if adequate resources are brought to bear.

Peace is more than the absence of war. To have peace we must build a world society in which man can express his personality and develop his potential without attacking his neighbour or coveting his goods. That is why nuclear fission has such a great contribution to make to the building of a peaceful world, and to the eradication of poverty. Substantial efforts have been made by the United Nations, by the International Atomic Energy Agency, and by individual countries in this great endeavour. My own country has played an important part by co-operating with developing countries in their own nuclear power programmes.

Perhaps it is well, however, to add a word of caution based upon our own experience. Nuclear energy is only a tool for economic development. It has its limitations. It is massively expensive. Only the richest and most highly industrialized countries can afford the experimentation that is essential to the development of the technology.

For example, the production of electricity from nuclear reactors has now reached the state where it is possible to contemplate the building of large generating stations wherever there is a demonstrable need for large amounts of electrical power, and where the power generated can be brought to bear effectively on the solution of existing problems. The question is: how many developing countries can meet these criteria?

We have all heard of the "agro-industrial complex" and particularly the project that is under study in India. This would involve the use of nuclear power to pump deep underground water to the surface for irrigation. As I understand it, nuclear power would also be used for the local production of fertilizer. If successful, such a complex would offer the potential for a major new step in the "Green Revolution" that has already had such beneficial effects in the Indian sub-continent. Its success could open an important new chapter in the story of man's fight against hunger and malnutrition.

The application of nuclear energy to the largescale desalting of sea-water is another, and a more difficult question. The need undoubtedly exists, and this could be the concept that will start new Green Revolutions in the deserts of the world. But just as nuclear energy is not always the most economical means of generating electricity, so we must be careful not to mislead peoples and governments into believing that the dream of desalting sea-water is just about to become a reality.

In the course of the next days, you will devote much of your time to the large-scale use of atomic energy for the production of electricity and for the desalting of sea-water. You will also consider the numerous applications of isotopes and radiation—in research, in industry, in agriculture and in medicine. There have been remarkable achievements, particularly with the new nuclear techniques for the diagnosis and treatment of cancer and of some of the other diseases that afflict mankind. You will seek to evaluate what contributions these can make to the improvement of life in the developing countries.

Isotopes and radiation are tools—their use is not an end in itself. We must, as I have said, identify what our aims are and then see whether atomic energy provides the best tool for achieving them. For example, the developing countries have a great need to find better ways of preventing the wastage of food in storage. Pests and various forms of decay destroy a large fraction of what is produced. Irradiation may help to conserve this food, but until this has been demonstrated and its economic feasibility established, better known techniques—dehydration, canning or refrigeration—are still probably more appropriate in most situations.

Another problem is the provision of sterile medical supplies, often under adverse conditions remote from the facilities of modern hospitals. One technique is now well established: it involves first sealing medical supplies in hermetic packages and then irradiating them to ensure complete sterility. The supplies are safe from any infection until the moment when the packages are opened—and, of course, this can be at the moment they are needed for use. I believe this technique is ready for immediate adoption in developing countries. It is best if the choices can be made in the developing countries themselves by their own scientists and economists, their own entrepreneurs. To do this they must have their own centres of excellence where innovators are encouraged and where proper evaluations can be made in relation to local needs and local priorities.

We have come to Geneva to discuss the silver lining of the nuclear cloud, a happy circumstance that does not permit us to disregard the cloud itself. The achievements and possibilities of the peaceful uses of atomic energy on which I have touched this afternoon justify a sense of pride and hope. Nevertheless, we are discussing a force that, if misused, has a destructive capacity difficult for any of us, scientist or layman, to comprehend fully.

Meeting here in this ancient and free city where so many of mankind's hopes for peace have centred, you constitute a body of expertise on nuclear questions that is unique. As I wish you well in your discussions of peaceful nuclear technology I urge you to keep in mind your special responsibility to all mankind, and above all to the rising generations born into a nuclear world they did not make.

Today there is an equilibrium between the great nuclear powers, the United States and the Soviet Union. These powers are now seeking ways to limit the nuclear arms race; I hope to find an equilibrium at a lower and less menacing level. I have suggested to you that China may soon be a nuclear power to be reckoned with. This will call for a new equilibrium, and the sooner China comes fully into the councils of the world, the better for us all.

So I leave with you this thought. The peoples of the world need the energy and other benefits that nuclear science has to offer. They accept reluctantly the mutual balance of nuclear deterrence that offers them a measure of security. But many of those without the special knowledge and expertise you enjoy look upon nuclear energy as inherently dangerous and threatening, like a halfdomesticated beast. You, ladies and gentlemen, as the managers of nuclear knowledge and technology, are uniquely equipped to bring home to directly and by moulding your governments, world public opinion, their responsibility to see to it that the beast is fully domesticated and kept at useful work for the benefit of all.

THE COFFEE AND COOKIES OMBUDSMAN

By Lewis Seale

Keith Spicer, the flamboyant young professorjournalist who once advised Scarborough College students that the best place to learn French is in bed, has become an Ottawa bigwig and learned a new style.

As the Federal Commissioner of Official Languages, an ombudsman with wide power to ensure equal treatment for English and French in federal agencies and crown corporations, he shuns dramatic confrontations in favour of what he likes to call the coffee and cookies approach.

Stripped to its essentials, this means he loosens his tie and talks to the people involved in disputes in the big orange armchairs in his office rather than in a courtroom atmosphere.

"You've got to use your bloody head as well as your bleeding heart," he said in an interview recently.

Thus he interprets the Official Languages Act of 1969 to say that he can help make French a working language in the civil service, but he sees this as a long-range programme that it would be quixotic to try to implement immediately.

Not Faceless Mandarin

Mr. Spicer is still not the image of the faceless mandarin, despite his rank as a deputy minister. With his long hair in a fashionable tangle and his shirtsleeves rolled up, he looks more like a bright young man from a far-out task force.

But he has turned out to be the singleminded crusader that some people pictured when the act established his job with vast powers of inquiry—a Czar, a potentate, or (this from John Diefenbaker) a super-duper-snooper.

In the 10 months since he took office, he has been involved in only one public controversy, and Reprinted from The Globe and Mail, Toronto



he cooled it quickly with apologies to Air Canada employees who protested that Mr. Spicer's officials were unfairly spying on their bilingualism.

The coffee and cookies approach was the one Mr. Spicer took on his first difficult case and it worked so well that he hopes never to have to abandon it.

As he recalls it, the case involved an official who angrily tore up a form because it had been filled out in French. Mr. Spicer got a complaint and invited the official over to tell his side of the story.

"I was trembling more than he was," Mr. Spicer said. They sat down in the orange armchairs with their coffee and the official quickly admitted that tearing up the form was a mistake. He volunteered an apology and Mr. Spicer's secretary translated the note into French for him and typed it. Not long afterward, the official got a note of thanks from the young man whose form he had torn up—in English.

For Mr. Spicer, the word that sums up this settlement is civilized—a word that he returned to frequently during a long conversation about his office.

He said, for example, that his most important role is to help make a more civilized climate of dialogue among Canadians. He feels Canadians only have three or four years to show that such a civilized dialogue is possible if bilingualism is not to lose its credibility.

Mr. Spicer has not yet used his extraordinary investigative powers that allow him, among other things, to accept evidence that would not be admissible in a court of law and to enter almost any premises occupied by federal institutions.

In line with the low-key approach, he wanted the complaints section of his office to be called the conciliation service. This was frustrated by Public Service Commission classifications of employees which reserves the conciliation designation for conciliation officers in the Labour Department.

But the Chief of the Complaints Service is literally a diplomat—Marcel Blais, who began his career in the External Affairs Department, before moving on to other jobs in the Quebec and federal public services.

The Air Canada controversy involved the Special Studies Service whole mandate and can be compared with preventive medicine. Special studies officers survey particular departments and agencies to assess their strengths and weaknesses, in terms of bilingualism, and to suggest how they can avoid pitfalls.

There are varying accounts of the incident, but it is clear that an official from the Special Studies Service went to Air Canada's Ottawa Airport ticket counter December 14 and spoke to workers there in French, recording the conversation on tape.

Mr. Spicer explained that Air Canada employees were to have been warned of the experimental testing, but due to misunderstanding between himself and Air Canada management the warning was not given. "I immediately stopped the experiment as unacceptable. No names of employees were taken," he said.

There are 12 officers in the Special Studies Service, compared with eight in the Complaints Service. Over the next few years they will be surveying bilingualism among 172 agencies or departments. So far they have completed three studies, are working on seven, and have eight more in the planning stages.

"I know this is not going to be my last mistake. I'm resigned to that," Mr. Spicer said of the Air Canada incident.

Could Be Controversial

The next controversy could come over a poster that has been prepared, telling people about his office. "Now you're talking," says the English caption, with a pretty girl pointing her finger forward. "And Parliament has given you a sympathetic listener—a 'language ombudsman'," it goes on.

"His job is to uphold the equality of English and French as official languages in all federal agencies and crown corporations. If you have any comments and problems, he's all ears."

The text went through various drafts to make it as inoffensive as possible and it has been read to civil service union leaders who gave it their blessing. But Mr. Spicer is still concerned that he will be accused of looking for trouble.

The poster is to be distributed gradually, starting in about a month in Ottawa and spreading into the bilingual districts where federal services are to be made available in both languages starting later this year.

Other ombudsmen have found that the volume of complaints is closely related to the amount of publicity given their offices and the poster may produce an increase.

They are now coming in at a rate of two or three a day. Not surprisingly, about a quarter are from English-speaking Canadians and the rest from French Canadian—almost the reverse of the proportions of English-speaking Canadians and French Canadians in the population.

There are a number of complaints that Mr. Spicer can do nothing about—like the one from Montreal which charged that a particular playground supervisor was "unilingual in her lack of dynamism." One man wanted help in sending his son to a summer camp to learn English. There are numerous requests for money for Frenchianguage schools, especially from British Columbia, Alberta and Ontario.

Mr. Spicer's office replies to these letters and tells the writers where to take their problems whether it is to be the Montreal recreation department, a camps association or the provincial department of education.

Mr. Spicer calls this working outside the law but not against it: although this is not part of his mandate under the act, it can encourage civilized dialogue.

Perhaps his proudest accomplishment along this line was to help arrange an exchange of high school students from Burlington and Ste.-Annede-la-Pocatiere after he broached the idea in a speech to the Burlington students.

The office started off slowly, in what Mr. Spicer calls an orange-crate situation. When he arrived the first day he did not even know how to order pencils and already the Treasury Board was asking him for a five-year spending forecast. There were also a dozen complaints, including one that could not wait. "It was like leading a cavalry charge into a swamp," he said. The routine has now been smoothed out, although there are still some bugs like pictures that slide down the walls because the sticky patches that are supposed to hold them up do not cling to the walls.

The staff is, in Mr. Spicer's words, a mirror of Canada. There are even two unilingual Anglophones who will join civil servants from other departments in language classes learning French. Among officials, excluding clerical workers, there is one of Ukrainian ethnic origin, one Turkish, one black Jamaican, one East Indian and one Romanian.

At the top there is a nice balance between Mr. Spicer, who calls his background WASP, the Director-General, former Quebec Associate Education Minister Jean-Marie Morin. Mr. Blais, who heads the complaints service, is of French background and Lloyd Stanford, who heads the Special Studies Service, is of English-language background.

The staff now stands at a little over 40, including clerical workers. Mr. Spicer expects to go up to about 55. After a few years it might decline as fewer special studies are required and a momentum has developed that makes federal agencies consciously try to avoid pitfalls.

"What we want, in a nutshell, is no complaints," Mr. Spicer said.



Students at language training school.

CANADIAN AID GOES TO HELP PAKISTANI REFUGEES

The tide of people flowing from East Pakistan to India in the past six months has created a huge and complex refugee problem in a region with few resources to spare, and has flashed terrible new scenes of human suffering before the eyes of the world.

Homeless, ill and hungry, an estimated nine million citizens have fled East Pakistan to live for the time being in adjacent Indian states—often with family or friends, but in more cases in one of the many camps set up by the Government of India, or in any shelter that can be found. To cope with their most urgent needs help has mainly come from the Government of India; also from the governments of several countries, from international agencies and voluntary groups, and from individuals in all parts of the world.

In response to an April 30 appeal, the Canadian Government provided \$50,000 to purchase mobile dispensaries for the Indian Red Cross. A further contribution of \$2,000,000 was announced in the House of Commons on May 28, following an appeal for refugee assistance by U.N. SecretaryGeneral U Thant. About 8,000 tons of rapeseed, a high-priority requirement in India's refugee support programme, was purchased and sent at a cost of \$1,250,000 while another \$680,000 from the Canadian contribution was used to support the efforts of various organizations already at work in the camps—the U.N. agencies (UNICEF, the World Food Programme, and the World Health Organization); the League of Red Cross Societies (milk and medical stations); and four Canadian voluntary groups (Oxfam, the Canadian Council of Churches, the Catholic Organization for Development and Peace, and the Mennonite Central Committee).

On July 26 a further contribution of \$2 million was announced by the Canadian Government. Over \$1.2 million was used again for the purchase of rapeseed while the remainder was used for further support to the various non-governmental organizations already at work in the camps.

Contributions have also been made by some of the Canadian provincial governments; Ontario sent four ambulances last June and is sharing



Early in July, at the invitation of the Government of India, three Canadian Parliamentarians, Messrs. Macquarrie, Brewin and Lachance visited India to observe the refugee areas. While in New Delhi they discussed the problem with the Prime Minister, Mrs. Gandhi. costs with the Federal Government on shelter materials carried overseas by Canadian Armed Forces airlift; Saskatchewan provided \$100,000 worth of rapeseed; and British Columbia donated \$100,000 to the Save the Children Fund. Many Canadians, witnessing the growing tragedy through television and newspapers each day, found a great variety of ways to respond.

In British Columbia June 18 was proclaimed Pakistan Refugee Day and the Canadian Save the Children Fund and a Vancouver newspaper collected contributions from the public. Employees donated through a special collection in Toronto's City Hall. The Unitarian Service Committee launched an emergency appeal and diverted shipments of milk and clothing to the Calcutta area, while at Cardinal Leger's request the organization supporting his work in Africa arranged to send medical supplies to Calcutta. Marathon money—\$5,000 raised last fall in Ontario by students at the Port Credit Secondary School—was used to provide medical personnel and supplies.

To coordinate the many voluntary relief efforts in Canada, eight social welfare groups joined for the first time in a single organization—the Combined Appeal for Pakistan Relief, which will channel donations to wherever the need is greatest in the continuing struggle to help displaced millions live day by day until a better future is in sight. Canadians have already donated over \$1 million to this continuing appeal.

NEW CANADIAN DEVELOPMENT ASSISTANCE

Canada and India during July and August signed three development assistance agreements worth \$51 million (Rs. 37 crores). Two were new development loans while the third was for the import of free Canadian wheat during 1971-72.

The first development loan for \$10 million (Rs. 7 crores) was signed on July 16. It provides for a line of credit arrangement through which purchasers in the public and private sectors can buy direct from Canadian suppliers of machinery, equipment and services. It is expected that most of the loan will be used for the supply of sophisticated electronics and mechanical equipment for Indian airports. In addition, arrangements are being made for the purchase under the loan of a hydrogen gas generating plant for the U.P. State Electricity Board: snow sweepers for the Border Roads Organization; diesel electric locomotive spares for Indian Railways: 60 ton road pulling unit for the U.P. State Electricity Board; and engine parts for Indian Airlines.

The second development loan of \$1 million (Rs. 70 lakhs) was signed on August 12 and provides for the procurement in Canada of machinery for the fertilizer bulk handling facilities to be

constructed at the Port of Kandla. The construction of these facilities will permit considerable savings in foreign exchange since fertilizers purchased in bulk are cheaper than specially packaged or bagged fertilizers.

Earlier this year Canada and India signed two other development loans for \$43 million (Rs. 30 crores). These loans were used for the purchase of industrial raw materials and fertilizers (\$40 million) and oil exploration equipment for the Oil and Natural Gas Commission.

All Canadian development loans are free of interest and service charges, and are repayable over fifty years inclusive of a ten years grace period. As such the terms are the softest available to India from any source.

Wheat Grant

In July Canada and India exchanged letters agreeing to import of \$40 million (Rs. 28 crores) of Canadian wheat during 1971-72. This is free wheat and involves no repayment by the Government of India to Canada. Over the years Canada has provided India with over \$400 million (Rs. 280 crores) of grant food aid including wheat, rapeseed, flour and milkpowder.

FLIGHT SIMULATOR TURNED OVER TO AIR INDIA



Captain K. M. Mathen, Director of Operations for Air India and Mr. P. J. Haines, Director of Engineering, CIDA on the flight deck of the Boeing 747 flight simulator for Air India which was accepted in the CAE Electronics Ltd. plant in Montreal by Air India.

TAX REFORM LEGISLATION

In the July-August issue of CANADA we published highlights from the tax reform legislation presented in the House of Commons by the Minister of Finance on June 16, 1971. The legislation is now being debated in the House of Commons and if it is passed this fall it is the Government's intention to put it into effect on January 1, 1972. To familiarize Canadians abroad with the changes inherent in the new legislation we are providing below a synopsis of the bill comparing it with the present system.

ITEM	OLD LAW	NEW BILL
Single taxpayer—basic exemption	\$1,000	\$1,500
Married taxpayer—basic exemption	\$2,000	\$2,850
Spouse's income	Spouse's exemption of \$1,000 reduced \$1 for every \$1 that in- come exceeds \$250.	Spouse's exemption of \$1,350 reduced \$1 for every \$1 that in- come exceeds \$250.
Married exemption for supporting dependant	\$2,000 when unmarried taxpayer supports dependent child or dependent relative.	\$2,850—Dependent must live with taxpayer. Exemption re- duced where dependant has in- come over \$250.
Children under 16	Parent deducts \$300. If child's income is over \$950, excess may be added to parent's tax (notch provision).	Parent deducts \$300 which is reduced \$1 for every \$2 of child's income over \$1,000.
Children over 16	Parent deducts \$550. If child's income is over \$950, excess may be added to parent's tax (notch provision).	Parent deducts \$550 which is re- duced \$1 for every \$1 of child's income over \$1,050.
Other dependants	Taxpayer deducts \$300 or \$550, depending on dependant's age. If dependant's income is over \$950, excess may be added to taxpayer's tax (notch provision).	Taxpayer deducts \$300 or \$550 depending on age of dependant, and reduces exemption as above if dependant's income exceeds \$1,000 or \$1,050.
Unmarried clergymen	Deduct \$1,000 if fulltime servant employed in dwelling.	No deduction.
Elderly taxpayers	Additional \$500 exemption if age 70 or over.	Exemption increased to \$650 extended to taxpayer age 65 or over. Guaranteed income sup- plement made exempt.

ITEM	OLD LAW	NEW BILL
Special deduction	Individuals who are blind or are confined to bed or wheel chair are allowed a special deduction of \$500 a year.	Special deduction increased to \$650 a year.
Child care expenses	No deductions.	Up to \$500 per child under 14 or over 14 and infirm with a limit of \$2,000 per family. Deduc- tions may not exceed 2/3 of in- come of parent claiming deduc- tion. Receipts needed. Deduct- ed by mother unless unable to work. Payments to dependants or to relatives under 21 do not qualify.
Employment expenses	Very limited; e.g. union dues.	3% of gross employment income up to \$150 deductible.
Expenses when working away from home	Amounts received from employ- er by construction workers for board, lodging and transporta- tion at distant sites not taxable.	Old law extended to all em- ployees.
Moving expenses	Employer may deduct as busi- ness expense. No deduction by employee.	Employees and self-employed may deduct from income from new job one year carry-over. Must move 25 miles closer to job. Special rules for students.
Medical expenses	Allowable expenses deductible to the extent they exceed 3% of net income. Insurance premiums not deduc- tible.	List of allowable expenses in- creased to include training ins- titutions for disabled persons and prescribed appliances and equipment. Premiums to plans other than government are classed as medi-
	Expenses reimbursed by govern- ment plans not deductible.	cal expenses. Expenses for which taxpayer has been reimbursed under a plan not classed as medical ex- penses.
	Employers' contributions to pub- lic hospital plans and some me- dical plans result in taxable be- nefit; contributions to private plans do not.	Employers' contributions to all government plans result in tax- able benefit.
Unemployment insurance	Contributions not deductible; benefits not taxable.	Contributions deductible; bene- fits taxable.
Club fees, convention expenses, entertainment costs	Generally deductible by persons carrying on a business or pro- fession.	Yachts, lodges and club dues disallowed; geographical restrictions placed on conventions.
Charitable donations	Donations to registered charit- able institutions limited to 10% of net income.	Limit on donations 20% of net income. Donations to national amateur athletic associations qualify.
	Donations to federal and pro- vincial governments deductible without limit.	Same provisions for donations to governments.

PERSONAL INCOME		
ITEM	OLD LAW	NEW BILL
Pension plans, registered retire- ment savings plans and deferred profit-sharing plans	Limit on deductible contribu- tions of \$1,500 for pension plans and profit-sharing plans and \$2,500 for retirement savings plans.	Limits increased to \$2,500 for pension plans and profit-sharing plans and to \$4,000 for retire ment savings plans.
	Foreign-source income of pen- sion plans and profit-sharing plans may not exceed 10% to qualify for tax-free status.	90% of assets of all plans must be Canadian. Penalties for hav- ing more than 10% foreign as sets; not necessary to dispose of present excess foreign assets.
	Some restrictions on investments of pension plans and profit-shar- ing plans. No restrictions on in- vestments of retirement savings plans.	Investments of retirement savings plans to be restricted or same basis as profit-sharing plans.
	Special rules for taxing lump- sum withdrawals from pension plans and profit-sharing plans.	Withdrawals taxed at ordinary rates (but may average or defe- tax under new rules). Special rule for present accumu lations in pension and profit sharing plans.
Fellowships, scholarships, bursaries	Not taxable unless related to employment.	Taxable with an annual exemp tion of \$500.
Training allowances	Not taxable.	Taxable except for living away from home allowance.
Research grants	Not taxable unless related to employment.	Taxable with deduction for re search expenditures.
Benefit from personal use of au- tomobile provided by employer or business	Taxed in some circumstances.	Minimum value set for persona use.
Income maintenance insurance	Not taxable if received from an insurance company.	Taxable if employer contributes to premiums, but with a deduction from benefits for premiums paid since 1967.
Income averaging	Special rules for special types of receipts. Five-year block ave- raging for farmers and fisher- men.	General averaging for all tax payers whose income in a yea exceeds four-year average by 20% and immediately preced ing year by 10%. Income o each preceding year deemed to be not less than \$1,600. Also special forward averaging for certain receipts through the acquisition of an income-aver aging annuity. Averaging for farmers and fisher men will continue as in the old law. Present special rules remain for three or five years.
Servicemen	Special rules—taxed on a monthly basis.	Treated as ordinary taxpayers.

ITEM	OLD LAW	NEW BILL
Rate schedule	Rates (including provincial tax at 28%, old age security tax and other special taxes) from 14.8% to 82.4%.	Rates (including provincial tax at 30%) from 22.1% to 61.1% in 1972. In years 1973-76, federal rate of 17% on first \$500 reduc- ed in steps to 6%.
	Surtax on foreign investment income—4%	Surtax on foreign investment in- come eliminated.

ITEM	OLD LAW	NEW BILL
General rule	Not taxed.	One-half capital gains to be in- cluded in income. One-half losses deductible from gains. Losses not deducted in the year are carried back one year and forward indefinitely. Individuals may also deduct up to \$1,000 of losses each year from other in- come.
Valuation Day		General rule: cost basis of asset to be higher of original cost or fair market value on V-Day in determining gains and lower of cost or market in determining losses. For bonds, etc., cost in these rules is amortized cost. Taxpayer may elect to use fair market value on V-Day for all assets.
Homes		No tax on sale of principal resi- dence and one acre of land or additional land surrounding resi- dence if proven necessary to en- joyment as residence. Farmer has alternative to deduct \$1,000 per year on home and farm.
Works of art, jewellery, etc.		\$1,000 minimum cost per item or set of items. Losses allowed against gains from similar assets and excess carried back one and forward five years with same restriction.
Other personal property		\$1,000 minimum cost per item, or set of items. Losses not al- lowed.
Shares	and the second sec	Same as general rule.
Bonds, mortgages, agreements for sale, etc.	at the providence of the second	Same as general rule. Deep dis- counts half-deductible to issuer.
Windfall gains	Capital gains from gambling sweepstakes and the like not taxable; losses not deductible.	No change.

CAPITAL GAINS

	CAPITAL GAINS	
ITEM	OLD LAW	NEW BILL
Rollovers (carry-over of basis and deferral of gain)		 Rollovers permitted for: expropriation and destruction transfers to an 80%-owned corporation liquidation of a wholly-owned subsidiary certain amalgamations and corporate reorganizations transfers to a partnership certain dissolutions of partnerships.
Gifts		No deemed realization for gifts to spouse; on subsequent sale, capital gains tax paid by donor. Deemed realization at time of other gifts.
Bequests		No deemed realization for be- quests to spouse. Deemed realization at death for other bequests. Special rule for depreciable pro- perty.
Arrivals and departures		Taxpayers moving to Canada will value their assets at that time for the purpose of calculat- ing subsequent gains or losses. On leaving Canada, deemed re- alization except for assets on which a non-resident is taxable by Canada. First \$5,000 exempt. Alternatively, taxpayer may elect to be taxed as if resident of Ca- nada in year of actual disposal, provided reasonable security given at time of departure.
Averaging		Capital gains subject to general averaging and forward averaging provisions.
Estate taxes	No tax on first \$50,000. Maxi- mum rate of 50% reached at \$300,000. No tax on transfers to spouse.	Federal estate and gift taxes eli- minated.
CO	RPORATIONS AND SHAREHOLDE	RS
ITEM	OLD LAW	NEW BILL
Rates of tax	21% on first \$35,000 and 50% on balance, (plus temporary 3% surtax).	General rate 50% in 1972 re- duced by one percentage point annually to 46% in 1976. If eli- gible for small business incen- tive, 25% on first \$50,000 of busi- ness income (see below).
Ordinary dividends paid by Ca- nadian corporations to resident individuals	Individual shareholders can de- duct a tax credit of 20% of divi- dends.	Dividend tax credit increased to 33 1/3% and included in in- come.

CORPORATIONS AND SHAREHOLDERS

ITEM

OLD LAW

NEW BILL

Small business incentive

New mines

Rate of 21% on first \$35,000 available to all corporations.

Rate of 25% on the first \$50,000 of business income available only to Canadian-controlled private corporations. Low rate not available to the extent funds used for non-business purposes and low rate ends once \$400,000 of before-tax earnings have been accumulated after 1971.

MINING AND PETROLEUM

ivew mines		
Three-year tax exemption	Income exempt for first three years.	Existing exemption limited to in come earned before Jan. 1 1974.
Accelerated depreciation	No provision.	Assets related to a new mine (e.g. mine buildings, machinery and equipment, a refinery, and townsite facilities) may be in- cluded in a separate asset class and an annual deduction made equal to the greater of: — income from the new mine, or — 30% of unclaimed balance. This accelerated depreciation also applies to most assets re- lated to the expansion of an ex- isting mine where the milling ca- pacity is increased by at least 25%.
Shareholders' depletion	Shareholders of certain mining and petroleum companies are allowed to exclude from income 10%, 15% or 20% of dividends received.	Repealed.
Prospectors and Grubstakers	Proceeds on sale of mining pro- perties are exempt from tax.	Exemption from tax is with- drawn. Where property is sold to a cor- poration in exchange for shares of that corporation, prospectors or grubstakers may elect to pay no tax at that time; they are deemed to have a zero cost ba- sis for the shares and to pay capital gains tax on the pro- ceeds of disposal. The corpor- ration it then deemed to acquire property at no cost.

BUSINESS AND PROPERTY INCOME

ITEM	OLD LAW	NEW BILL
nterest on money borrowed to buy shares		
Corporations	Corporations are not allowed to deduct interest on money bor- rowed to buy shares in other corporations.	Corporations will be allowed full deduction for this interest.
Individuals	Individuals are allowed to de- duct interest on money borrow- ed to buy shares in corporations.	Full deduction of interest is con- tinued for individuals.
Entertainment and related ex- benses	Deduction allowed for reason- able entertainment expenses, membership costs and similar expenses provided they are incurred to earn income.	No deduction for social and re- creational club fees, or costs of yachts, fishing camps and other recreational facilities. Deduc- tion for entertainment and con- ventions similar to old law, ex- cept for geographical restriction on conventions.
armers and fishermen Cash basis	Farmers and fishermen are entitled to compute their income on a cash basis.	No change.
Averaging	Farmers and fishermen are entitled to special income-aver- aging provisions.	No change.
Basic herd	Farmers are entitled to classify a herd of animals as a capital asset, "basic herd", and gains and losses are treated as capi- tal gains and capital losses and are therefore tax-exempt.	Farmers will have an opportun- ity to establish a basic herd as at December 31, 1971. Basic herds will be valued on V- Day and any proceeds of dispo- sal up to this value will be ex- empt from tax. Proceeds in ex- cess of this value will be treated as farming income and eligible for the special forward averag- ing.
Straight-line depreciation	Farmers and fishermen may use straight-line depreciation instead of diminishing balance deprecia- tion and thereby avoid recaptur- ed depreciation. Gains on dis- posal of depreciable assets are treated as capital gains.	Straight-line depreciation phas- ed out.
Hobby farmers	A taxpayer whose principal bus- iness is not farming may de- duct only \$5,000 of farming loss annually from other income.	Similar to old law except that property taxes and interest which are not allowed as ope- rating losses can reduce subse- quent capital gains on sale of farm, but would not be allowed to create a capital loss.

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CANADIAN ROUNDUP

Immigration Act

Immigration Minister Mr. Otto Lang told the House of Commons September 9 that he does not know whether he will introduce the Immigration Act changes or publish an Immigration Policy White Paper after working for a long time on Act amendments. Facing change is a clause permitting visitors to Canada to apply for landed immigrant status, then stay in Canada while appeals against the Department's reaction are taken to the Immigrant Appeal Board and the Federal and Supreme courts. Those applying for landed-immigrant status while in their own country cannot come to Canada until approval of their application.

Ontario Elections

Ontario Premier William Davis on September 13 called a provincial election for Thursday, October 21. The Progressive Conservative Government has been in power for the past 28 years. In the past eight provincial elections in Canada, six have resulted in a governmental turnover.

Standings in the legislature at dissolution were: Progressive Conservative 68, Liberals 27, NDP 21, Independent 1 = Total 117.

Price Index

The consumer price index jumped sharply in August to 135 from 134.1 in July, Statistics Canada reported on September 16. The figure represents the largest July to August increase in food prices in more than a decade. The index, based on 61 prices equalling 100, was 130.5 in August last year. Food prices contributed mostly to the rise although nearly all segments of the over all index showed increases.

Unemployment

Unemployment dropped to 455,000 at mid-August from 514,000 in July, but the seasonally adjusted rate rose to 6.5 per cent from the July rate of 6.3 per cent. The figures, released jointly by Statistics Canada and the Manpower Department September 16 showed that the number of unemployed was 5.1 per cent of the labour force as compared with 5.7 per cent in July. The seasonally adjusted figure, used to forecast long terms trends, is computed to take summer peaks and winter slumps into account.

John Diefenbaker

Former Prime Minister John Diefenbaker celebrated his 76th birthday on September 18 by reading hundreds of letters and telegrams welcoming him home from a Welsh hospital. Mr. Diefenbaker, who became ill with an ulcer while visiting Wales, arrived back in Ottawa on September 17.

Toronto Telegram to Close

John Bassett, publisher of the Toronto Telegram, told employees September 18 a decision has been taken to cease publication of the 95-year-old newspaper, Canada's fourth largest daily. The announcement, posted on bulletin boards of the newspaper, said many details still must be completed "and, hopefully, the newspaper will continue to appear for a time, but decision has been taken." The Telegram has been involved in labour contract negotiations with 900 editorial and mechanical employees.

Frank Underhill

Frank H. Underhill, Canadian historian, political commentator and educator, died September 17 at the age of 81. He wrote the first draft of the **Regina Manifesto**, adopted at the founding convention of the Cooperative Commonwealth Federation, the CCF, in 1933.

Cigarette Advertising

Tobacco manufacturers will stop advertising cigarettes on radio and television January 1 and will freeze spending on print advertising, the Canadian Tobacco Manufacturers' Council said on September 21. The Council also said health warnings will appear on packages and vending machines next April; brands exceeding the 22 milligrammes tar content and 1.6 milligrammes nicotine content will be taken off the market; and cigarette promotion through consumer prices would end January 1. Initial effects include a loss exceeding \$7 million in cigarette advertising to the broadcast industry. At least five brands probably will be withdrawn from the market. A Government Bill introduced on June 10 would prohibit all cigarette advertising and promotion from January 1; require a health warning; and ensure the government regulation of tar and nicotine levels. The manufacturers would be allowed promotion through sponsorship of sports and cultural events.

Canada at the UN

Canada on September 29 called for the United Nations to accept the Peoples Republic of China as the sole Chinese representative at the U.N. External Affairs Minister Mitchell Sharp called for the member nations to seat China promptly and effectively.

Mr. Sharp also criticized both the U.S.A. and the Soviet Union for testing nuclear weapons, and called for a ban on all such tests. His China comments were the sharpest yet in regard to a proposal to seat both the Peoples Republic and Taiwan in the General Assembly and to give China Taiwan's Security Council seat.

Cover : The 560 foot Idikki Arch Dam in Kerala. The dam is one of three being constructed with Canadian assistance by the Kerala State Electricity Board on the Peryar River in the Western Ghats. When completed the arch dam will be the highest in Asia and will add 780 MW to the southern grid.

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