

Bulletin

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MR. SHARP REPORTS ON NATO MEETING

On June 8, the Secretary of State for External Affairs, Mr. Mitchell Sharp, tabled in the House of Commons the communiqué and declaration issued at the end of the NATO foreign ministers' meeting he had just attended in Rome.

After his stay in Italy, Mr. Sharp visited Yugoslavia, Romania and Ireland. He reported to the House as follows on the NATO meeting and his subsequent travels:

Discussions are already under way between various NATO members and individual Soviet bloc countries on such important East-West problems as the limitation of strategic arms, Berlin, and the Federal German Republic's relations with its Eastern neighbours. At Rome, NATO ministers met to discuss what further steps the alliance and its members should take to promote improvement in East-West relations.

One possibility examined at Rome was the idea of a move in the direction of broader multilateral discussions, either in the form of a large conference or series of conferences, or a standing commission on East-West problems. Canada took the position that

the idea of a conference at the right time and in the right circumstances would be most useful. We felt, however, that the actual decision to convene such a meeting should not be taken until an East-West consensus had emerged on the aims of a conference and on the subjects which could usefully be discussed, and until a conference had reasonable prospects of success. Similarly, we saw merit in the idea of setting up a standing commission, although we thought that the time was probably not yet right for it. It is our view that progress in the individual East-West talks which I mentioned a moment ago would be a good yardstick for determining when the time had come to broaden discussions out into a general multilateral forum. We must keep in mind the primary importance of moving ahead on the substance of outstanding issues.

GUIDELINES FOR FORCE REDUCTIONS

Canada placed emphasis at Rome on the desirability of broadening the range of specific subjects under discussion with the other side. In 1968 and 1969, NATO had already indicated its interest in the possibility of mutual and balanced force reductions in central Europe but as yet there has been no formal Soviet response. At Rome, Canada urged NATO to go beyond its previous position and make a clear and forthright offer to explore with the members of the Warsaw Pact how to start negotiations on force reductions. To demonstrate the seriousness of NATO's approach, we said that the alliance's offer should include suggested guidelines for the reductions, and a precise procedure for communications with the other side. A forthcoming, explicit offer of this kind would, in our view, have the best chance of obtaining a positive reply.

Our two main preoccupations in Rome were, first, to urge that the alliance adopt a positive but realistic position on the subject of multilateral discussions, with emphasis on the substance of the issues at stake and, second, to have NATO make a firm offer to talk on balanced force reductions.

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In both of these respects, the outcome of the meeting was very satisfactory to Canada. On the first point, the meeting agreed that "in so far as progress is recorded as a result of...ongoing discussions - in particular on Germany and Berlin - the allied governments...would be willing to enter into multilateral contacts with all interested governments. One of the main purposes...would be to explore when it would be possible to convene a conference...." This reasoned, step-by-step approach to the question of a conference is in line with our own thinking. The communiqué also refers to the possible establishment of a permanent body in due course, as one way of starting multilateral negotiations.

INVITATION FOR DISCUSSIONS

On our second point, NATO's declaration on balanced force reductions explicitly invites interested states to hold exploratory talks on the subject and suggests four specific considerations which the allies would put forward in such talks. The Italian Foreign Minister was asked to transmit the offer to the other side, and in fact had already done so.

I think members will agree that the positions adopted by the alliance in Rome represent a clear step forward in the search for better relations with the East. I was also struck by the mood of co-operation and willingness to compromise displayed by all at the meeting.

We shall watch carefully for evidence that the other side is willing to respond positively. Early results may not be forthcoming, but in the months ahead Canada and other members of the alliance will be exploring actively the prospects both for an eventual conference and for talks on balanced force reductions, so that the momentum which has now been developed is maintained.

While in Rome I called for the first time on the Secretary of State of the Vatican.

From Rome I went to Belgrade and then to Bucharest at the invitation of the Yugoslav and Romanian Governments. In Romania, I flew over some of the flooded areas and was able to see for myself the desolation caused by the tragic national disaster that has taken place there, and to appreciate what it means in terms of human suffering and as a major setback to the Romanian economy. On the way home I paid a brief official visit to Dublin.

In each case I had talks with the President, the Prime Minister and the Foreign Minister on a wide range of bilateral and international questions including the results of the NATO ministerial meeting....

A total of 4,438 new active cases of tuberculosis was reported in Canada during 1969 compared to 4,824 cases reported in 1968. The number of re-activated cases reported decreased from 755 cases in 1968 to 680 in 1969. The total of new active and reactivated cases together decreased from 5,579 cases to 5,118 in 1969.

OTTAWA MOVES TO PROTECT EXPORTERS

A four-part program to protect Canadian exporters from loss of sales due to concessional financing by foreign governments was announced in the House of Commons recently by Mr. Jean-Luc Pepin, Minister of Industry, Trade and Commerce. Mr. Pepin explained that most industrialized countries had been making export financing facilities available for many years. However, over the past two years he said, domestic rates of interest had increased at a rapid rate throughout the world, while some governments had held their export financing rates at about the same level as before. "Coupled with the shortage of domestic funds, the availability of financing at favourable rates of interest has now become a significant factor in export sales between the developed countries, and this is where the problem lies," the Minister said.

STEPS TO BE TAKEN

The following measures to protect Canadian manufacturers against injurious competition were outlined by Mr. Pepin:

(1) Canada will use all available means consistent with its international obligations to curtail export financing by foreign governments in cases where it causes material injury to Canadian industry. In this context, consideration will be given to invoking the provisions of the Anti-dumping Act in specific cases.

(2) The matter will be pursued in the Organization for Economic Co-operation and Development (OECD) with a view to arriving at internationally-accepted rules for the extension of government-assisted export credits between industrialized countries.

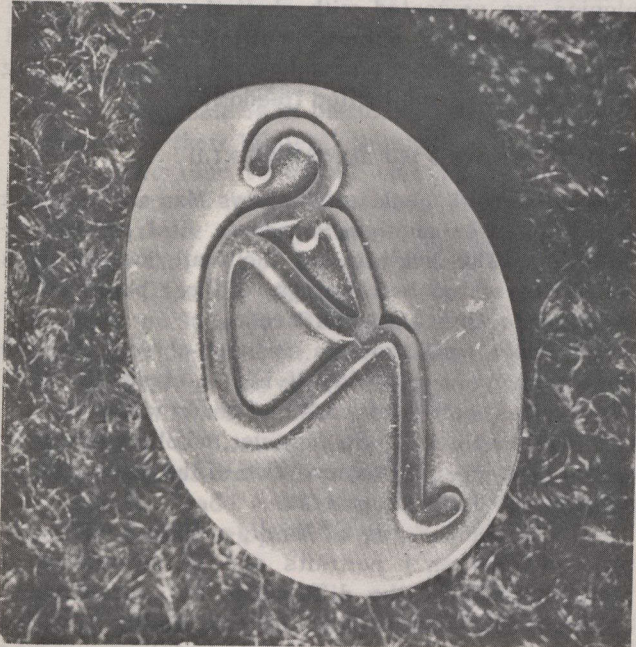
(3) In providing regional development incentives, the Department of Regional Economic Expansion will take into consideration any adverse impact which foreign government export-financing may have on Canadian industry. The regulations under the Regional Development Incentives Act already require that Canadian manufacturers shall be given an opportunity to supply machinery and equipment required for regional development projects, provided they can do so on terms which are competitive in price, delivery and performance.

(4) Pending progress through international action, the Export Development Corporation will continue to match competitive financing offered by other countries to enable Canadian exporters to compete in foreign markets essentially on the basis of price, quality, delivery and service.

Mr. Pepin said that the Government was "satisfied that in several instances the availability to foreign manufacturers of attractive export credit has resulted in substantial loss of business to individual Canadian companies which otherwise would have been competitive in price, performance and delivery".

INVENTORS' PINS

Three hundred and ninety Canadian inventors whose products have been licensed for commercial exploitation by Canadian Patents and Development Limited are now entitled to wear in their lapels a special pin, known as "The Inventor". This design – a stylized version of Rodin's *The Thinker* – has



been designated the official symbol of CPDL, a subsidiary of the National Research Council of Canada, which is responsible for patenting and licensing of inventions of government and university scientists.

Half-inch silver ovals bearing the raised, polished "Inventor" figure have been awarded to inventors whose patents, issued between 1954 and 1969, are being actively exploited by CPDL. A certificate declaring recipients to be inventors accompanies each lapel pin.

Dr. B.G. Ballard, President of CPDL, says The Inventor was conceived because CPDL's activities are so largely and so closely associated with inventions and because the process of inventing seems invariably to include much intense thinking.

He says that use of the symbol will be restricted to *bona fide* inventors.

"We have set restrictions because throughout the history of mankind the quite small proportion of people which has comprised the inventor-group has made contributions to societies enormously out of proportion to their numbers. We believe that being designated as an inventor should not come easily," Dr. Ballard says.

Response on the part of the individual inventor has been uniformly favourable – so much so that Dr. Ballard confesses that the enthusiasm of many of the recipients exceeds his expectations.

NEW NUCLEAR REACTOR

A small nuclear reactor with a range of possible applications extending from pollution studies to crime detection has been brought into operation at the Chalk River Nuclear Laboratories of Atomic Energy of Canada Limited.

The reactor called, SLOWPOKE, went critical (began producing a controlled chain reaction) early last month and is now undergoing a series of tests and evaluations to confirm its operating capabilities and some of its potential uses.

The core of the reactor, containing uranium fuel, is only nine inches in diameter and ten inches high. By comparison, the reactor vessel or core of NRU, largest of the five other reactors at Chalk River, is 3,000 times larger in volume.

But it is not so much the size of SLOWPOKE that distinguishes it as its operational features. It is designed to be safe, reliable and maintenance-free, to turn off and on with the flick of a switch, and to run for as long as ten years without being refuelled.

As a producer of neutrons, SLOWPOKE can be used for neutron-activation analysis,⁽¹⁾ for the production of short-lived radioisotopes employed in medical treatment and for university and hospital research and forensic science.

HISTORY OF SLOWPOKE

The trade-name stands for Safe Low-Power Critical Experiment. It had its genesis at AECL's Whiteshell Nuclear Research Establishment in Manitoba several years ago, when a development study and a market appraisal of small power reactors were carried out. From the data obtained, it was concluded that, no matter how carefully engineers designed small nuclear power plants, it would cost more to make and operate them than it would comparable conventional plants.

During the small-reactor appraisal, new information from Las Alamos Scientific Laboratory in the United States showed that it was possible to construct small reactors requiring less uranium than was previously supposed. Following this lead and applying experience gained in the Whiteshell study, several members of the study group turned their attention to a reactor design suitable for neutron production rather than power production. Motivating this approach was the growing demand for neutrons, principally in the field of neutron-activation analysis.

(1) Neutron-activation analysis is a method for identifying and measuring chemical elements in a material by bombarding it with neutrons. The newly-formed radioactive atoms in the sample give off nuclear radiations which tell what kinds of atoms are present and how many. Activation analysis is used in research, industry, archaeology and criminology.

ECONOMICAL DESIGN

Late in 1967, two members of the team at WNRE, J.W. Hilborn and R.B. Lyon, proposed the SLOWPOKE experiment. Their basic proposal was a major simplification in design which would result in capital and operating costs much lower than those of any similar units previously considered. By surrounding a very small fuel core in water with a beryllium reflector, it was possible to use the inherent negative coefficient as the primary safety mechanism. When the water in contact with the fuel gets hot, its effectiveness as a moderator decreases and the fission power is automatically limited to a safe level.

Conventional electro-mechanical safety devices are not necessary; nor are the skilled tradesmen normally required to test and maintain them. During routine operation the neutron flux is kept at the specified level by an automatic drive control-rod. Operating procedures are reduced to a minimum so that relatively unskilled personnel can operate the reactor in complete safety. (One of the main objects of the present test program is to show experimentally that conventional electro-mechanical devices are unnecessary.)

USES

Neutrons from SLOWPOKE can be used to detect impurities in industrial and environmental materials, contributing to quality-control and to pollution-control. It can also produce very short-lived radioactive isotopes for use as tracers and for the treatment of some medical tumors. Another possible use is neutron radiography.

MAN AND HIS CROWDED WORLD

One of the most stimulating presentations at Man and His World 1970, Montreal's international cultural exhibition, which runs this year from June 12 to September 7, seems sure to be the "Overpopulation" pavilion, which takes an unwavering look at the world we live in, and what we have been doing to it all these years.

The exhibits in this pavilion answer hundreds of questions about the Earth and the things that it has provided for Man. They raise dozens of other questions about the way Man is using these resources and the changes he may have to make in this approach if he is to survive in the manner to which he has become accustomed.

Films, photographs, charts, maps, diagrams, graphics and all sorts of objects on exhibit tell the story in more than two dozen display areas, each with a theme and a message of its own.

Among the highlights is a report on non-renewable resources, those found in limited amounts and undergoing steady consumption, such as coal, oil and soil. The fact that they are essential and basic to man's survival is underlined and the exhibit shows

how long each will last, based on known reserves and our ever-increasing consumption.

The impact of a series of exhibits on the power of nature, which, while usually beneficial to Man, also can be catastrophically destructive, comes from dramatic illustration of the effects of earthquakes, the forces of the sea and the winds, and even the rain.

The facts and figures on the population explosion are presented with shattering effect by the use of distortion mirrors, multiplying mirrors and controlled lighting and sound, which produce a feeling of overcrowding and limited freedom.

DIRTY MAN AND HIS DIRTY WORLD

A metal-welded "junk wall" shows Man as Consumer and touches on another of today's vital problems - pollution. The exhibits on the wall include such things as rusted bed springs, old car parts, tools, instruments, toys and appliances.

Another wall shows a mass of objects that are thrown away in everyday living - cigarette butts, beer bottles, soft-drink cans and candy wrappers.

The pavilion is not, however, wholly given over to sad or depressing topics. Two of the most striking exhibits are quite the reverse.

"The Many Faces of Man", a photographic display of children's portraits and of youngsters at play, emphasizes the differences in appearance of children in various parts of the world, but also stresses the similarities of their facial expressions and the games they enjoy.

"The Joys of Living" presents a refreshing change of pace. It reminds the visitors of those things that provide pleasure, the shared experiences that bring people together. The mood is created by a series of photo panels that catch people in motion, doing things they enjoy.

AID TO FIJI UNIVERSITY

The University of the South Pacific on the island of Fiji will receive \$250,000 from the Canadian Government over the next two years.

This assistance, administered by the Canadian International Development Agency, includes about \$100,000 for training awards that will enable students from Fiji and other islands in the region to go to the USP for training. These "Canada Scholarships" will be for degree-level or diploma studies in the University's schools of education, social and economic development and natural resources.

The Canadian commitment also includes provision of two or three professors to the university and certain research-support equipment. The USP may also establish a "twinning" arrangement with a university in Western Canada. Under arrangements of this sort an exchange of staff members takes place and there is collaboration in research undertakings or similar kinds of co-operation.

CANADA-TUNISIA COMMISSION

A Tunisian delegation headed by Mr. Chedly Ayari, the Tunisian Secretary of State for Planning, was in Ottawa from June 8 to 10, to take part in the second session of the Canada-Tunisia Joint Commission. The first session of the Commission was held in Tunis in February of last year.

The idea for this Commission was a result of President Bourguiba's official visit to Canada in 1968.

After discussing international questions and problems of mutual interest, the Commission reviewed most of the problems of particular interest to the two countries in their bilateral relations. The programme of economic and technical co-operation, trade relations, cultural relations and immigration were analyzed in depth and agreement was reached on the directions that will be followed in future.

The Canadian delegation was headed by the Secretary of State for External Affairs, Mr. Mitchell Sharp, and included Mr. Jean-Pierre Goyer, Parliamentary Secretary to the Secretary of State for External Affairs, Mr. d'Iberville Fortier, Canada's Ambassador to Tunisia, as well as senior officials of the Department of External Affairs, the Department of Industry, Trade and Commerce, and the Canadian International Development Agency (CIDA).

FLYING PROFESSORS

Lakehead University is running an extension program in northwestern Ontario with airplanes and videotapes.

Every town in the section large enough to have a high school from north of Lake Superior to the Manitoba border is connected with the program. For most courses, the professor flies into town every second weekend. He gives a three-hour class on Friday night, another on Saturday morning and then flies back home to the Lakehead.

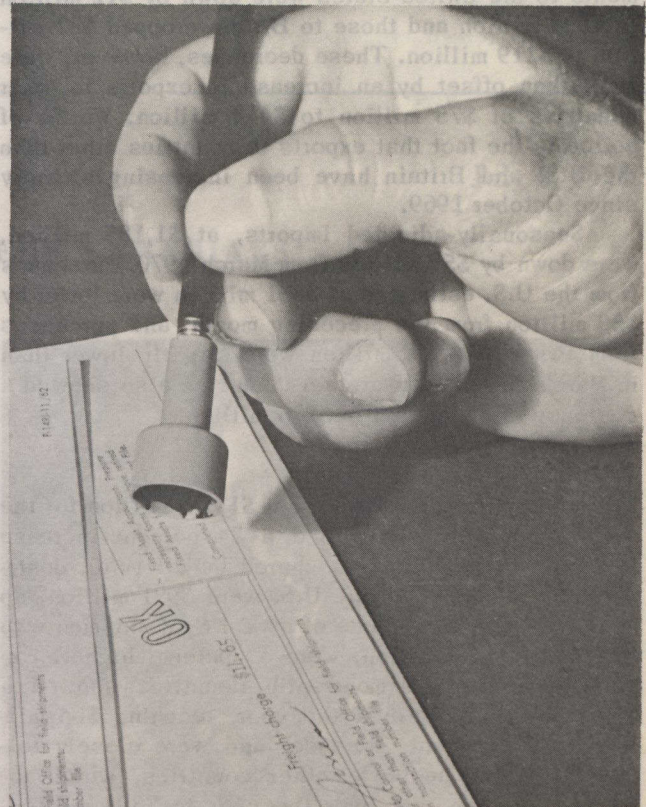
In some courses, where the students can only meet their professor once every four or six weeks, they gather once a week in a local school to watch a two-hour videotaped lecture that is sent to them by bus. After the lecture, the students phone their teacher in Thunder Bay and gather around a speaker-phone to ask questions.

Altogether, 520 are enrolled in Lakehead's off-campus extension program, the majority of whom are teachers working towards a degree, who will attend full-time summer sessions on campus.

Despite the costs of chartering airplanes for professors and producing and distributing videotapes, the program is a modest money-maker for the university. Not counting the indirect costs of using university facilities, direct costs are \$87,000. Income from tuition fees and provincial grants totals \$120,000.

PERMA-STAMP NEEDS NO INK PAD

A hand-stamp that carries its own ink supply, which can make more than 25,000 impressions before replacement, is now available in the Prairie Provinces. "Perma-Stamp" is one of the first commercial applications of "Porelon", a microporous plastic developed by S.C. Johnson & Sons Inc., the makers of Johnson's Wax.



Designed for use in repetitive marking or initialling, the feather weight perma-stamp cap fits on the end of an ordinary pencil.

Because Perma-Stamp has its own ink, incorporated during manufacture, it needs no ink pad and eliminates the possibility of inky fingers and messy papers. Stamping is done in one operation, rather than the time-consuming and noisy two-step pounding from ink pad to paper.

The raw material Porelon is an unusual plastic that replaces the rubber used in a conventional hand-stamp. Microscopic pores, as small as one micron, hold a specially-developed ink and release it at a predetermined rate when pressure is applied. After each stamping, the printing surface is re-inked by capillary action.

The ink, which cannot leak or dry out, releases only when stamped. It works on paper, cloth or any absorbant surface, giving 25,000 sharp smudge-free impressions. In addition to eliminating the ink pad, Perma-Stamp can reproduce small type faces, fine line drawings, and even photographs.

FAVOURABLE TRADE BALANCE

The External Trade Division of the Dominion Bureau of Statistics reports for April 1970 a favourable foreign trade balance of \$256 million at seasonally-adjusted monthly rates, the highest since the all-time record of January 1970. Merchandise exports for the month under review were estimated at \$1,441 million, \$31 million higher than in March 1970. Shipments to the United States were down by \$12 million to \$908 million and those to Britain dropped \$32 million to \$119 million. These decreases, however, were more than offset by an increase in exports to other countries of \$75 million to \$414 million. Worthy of notice is the fact that exports to countries other than the U.S. and Britain have been increasing strongly since October 1969.

Seasonally-adjusted imports, at \$1,185 million, were down by \$57 million from March 1970. Purchases from the U.S. estimated at \$851 million were lower by \$50 million from the preceding month, and purchases from Britain at \$59 million were slightly lower than in March. Imports from other countries also showed a decrease of \$5 million to \$275 million.

UNADJUSTED RATES

Preliminary export estimates of \$1,476 million for the month under review implied a 24 percent increase from last year. This was shared by all major destinations. Shipments to the U.S. were \$991 million, up by 13 per cent from those of a year ago; shipments to Britain at \$118 million, were 35 percent higher. Exports to other Commonwealth countries showed a great improvement over the year, reaching \$64 million, a 63 percent increase, and were closely followed by shipments to other countries, which increased 56 per cent over the year to \$304 million. Among the more important contributors to the increased exports were wheat, nickel and alloys, fertilizer and fertilizer materials, copper and alloys and wood pulp.

Imports for the month of April 1970 were \$1,292 million, 4 percent above those in the same period last year. Purchases from the U.S. stood at \$935 million, up by 2 per cent from April 1969. Shipments from Britain, at \$68 million, were 8 percent higher, and those from other Commonwealth countries, at 53 million, increased by 28 per cent. The EEC and Japan stood 14 percent and 16 percent above last year's figures, with sales to Canada of \$78 million and \$52 million. The only declines registered were in purchases from Latin America (5 per cent) and from other countries (under 1 per cent).

Imports of metals in ores, concentrates, and scrap, food products, crude petroleum, chemicals and

motor vehicle parts were substantially higher than in the same period last year. Showing a weaker performance than last year were passenger automobiles, industrial machinery and petroleum and coal products.

NEW MOTOR VEHICLE SALES

During 1969, Canadian sales (based on actual price paid by consumers) of new motor vehicles amounted to \$3,323 million and totalled 917,525 units. The figures represent an increase over 1968 of 6.6 per cent in dollar value and 3.2 per cent in unit sales.

North American manufactured vehicles have a 90.5 percent share of the Canadian market in dollar terms, and an 86 percent share in unit terms. Overseas manufactured vehicles continued their high rate of sales increases, 22.7 per cent in dollars and 18.0 per cent in units from 1968 to 1969, compared with sales increases of North American vehicles of 5.2 per cent and 1.1 per cent respectively.

Sales of commercial vehicles rose more substantially than sales of passenger cars, by 13.3 per cent in dollar value and 6.2 per cent in unit sales, compared to 4.9 per cent and 2.5 per cent respectively. In 1969, sales of passenger cars of Canadian and United States manufacture showed only a marginal increase of 0.1 per cent over 1968.

British Columbia led the other provinces for the second consecutive year in sales increases - +19.6 per cent in dollar value, +13.7 per cent in units. Saskatchewan, on the other hand, showed declines for two years in a row - in 1969 by 12.3 per cent in dollars and 15.3 per cent in units. Dollar sales increases were average in Ontario and Alberta and below average in Quebec and Manitoba.

UNIVERSITY SALARIES

Canadian university professors' salaries in 1969-70 ranged from less than \$7,000 to more than \$30,000. The total number of professors of all ranks was 21,742, while the median salary was \$13,265.

Results of the 1969-70 detailed survey of the salaries of teachers in 65 Canadian universities and colleges show that the median salary for deans was \$24,067; for professors, \$19,870; for associate professors, \$15,012; for assistant professors, \$11,837; for ungraded professors, \$14,050; and for lecturers and instructors, \$9,441.

Salaries of university teachers by region shows the median for Ontario as \$14,030; for the Western Provinces, \$13,288; for Quebec, \$13,016; and for the Atlantic Provinces, \$11,535.