President's Corner

CRUISE MISSILE TESTING

In connection with the INF agreement between the USA and USSR, there has been discussion about the original undertaking by Canada to test the cruise missile and the NATO "two-track" decision of 1979. In the letter from Allan MacEachen, then secretary of state for External Affairs, to George Schultz communicating the decision to approve the American request to test cruise missiles, this relationship is clearly stated: (Letter dated July 15, 1983)

"Because the weapons-testing issue raises fundamental questions affecting global security, my Cabinet colleagues have asked me to write you to set out in some detail the context in which this decision has been taken.

Canada joined in the NATO "two-track" decision in 1979, under which new allied missiles will be deployed in Europe. Beginning this year unless a verifiable agreement can be reached with the Soviet Union to make this action unnecessary. When we met with our NATO colleagues in June, we agreed that, if the negotiations are to succeed, it will be important for all the Allies to stand together behind their decision. As our contribution to this solidarity, Canada has agreed to help test vital components of the technology of the cruise missile. . . .

It is the Canadian Government's firm intention to redouble its efforts in the coming months to contribute to the progress and eventual success of current negotiations. . . ."

Study war no more

The Canadian Intelligence Service is checking the country's Peace Movement. Are Soviet agents lurking there in clandestine deployment? We hesitate any intrusion into spy-catcher machinations. We revel in all the intrigues in later publications. War movements are not to be scrutinized. That would violate all sense of fair play. Guns and bombs do not kill: it's people who somehow get in their way.

- Murray Wilton
Oct. 23, 1987

With the INF agreement almost concluded, renewed testing of cruise missiles surely sends the wrong signal to the rest of the world.

"Peace Week"

Nov. 9 - 15 is the Second International Peace Week of Scientists. The purpose of the week is for scientists throughout the world to engage in a broad and intensive public dialogue on issues of peace. The project is coordinated by the Nuclear Age Peace Foundation of Santa Barbara, Calif. Science for Peace coordinator for Canada is Eric Fawcett, Toronto.

the Polanyi Chair

NSERC president Arthur May announced Oct. 26 that John Polanyi himself would be the first John C. Polanyi Professor at the University of Toronto. The chair is the first ever funded by the Council. Co-founder was the Jackman Foundation whose grant will be used exclusively for Polanyi while he is at the University.

SFP, Pugwash Canada and University College of the University of Toronto have launched the Polanyi Peace Fund, contributions to which will be lodged with the Royal Society of Canada and used to fund scientists who want to accommodate applications to peaceful uses of science in their work.

CPPNW Gala

David Suzuki speaks on "The Nuclear Age 1987 - ?" at the Second Nobel Peace Prize Gala Dinner for CPPNW Nov. 5 in Toronto. Proceeds from the dinner will support third world and student delegates to the IPPNW Congress in Montreal June 2 - 6, 1988. Congress President is Paul Cappon, Montreal. He will preside over this eighth world congress whose theme is Healing our Planet: a Global Prescription.
Parnas is quite right in sounding a note of caution about the "euphoria" about the INF treaty. The INF agreement would account for the reduction of about 3% of the nuclear arsenals of the USA and the USSR if the accord goes through. Some of the euphoria is ascribable to political reasons emanating from those in Washington who want President Reagan to have his "place in history as a peacemaker by concluding his term on a "Swing" with Gorbachev (which he appears to be getting), despite his consistent record of escalating the arms race and financing this escalation by record budget deficits.

This ambivalence in interpretation of an INF accord is also reflected in current Canadian policy. While the Canadian government has shown significant departures from traditional conservative foreign policy in such matters as advocating an internationalist approach to nuclear arms control and forgiving the debts of the world's poorest nations, its defence policy has been skewed in a continentalist direction toward the escalation of military spending in line with Pentagon nuclear war-fighting programmes.

It is important not to miss an historic opportunity to move from cold war rhetoric to serious negotiations about a second detente. This involves negotiating a drastic cutback in numbers of long-range missiles, banning the elaboration of new missiles of the cruise type (of the kind that Canada is testing on behalf of the USA), seeking cooperation rather than confrontation in outer space, removing the obstacle of SDI, negotiating a ban on chemical weapons, continuing a dialogue to resolve regional disputes in the Persian Gulf and Central America and lowering barriers to trade by bringing the USSR into the international economic management structure based on GATT, IMF and the World Bank. Sound policy must rest on the recognition of the global inter-dependence of nations in economy and defence.

- George Ignatieff

NATO chiefs to study nuclear alternatives

WASHINGTON

NATO defence ministers will meet next week to examine the potential for bombers and submarine-based cruise missiles to maintain a nuclear umbrella over Western Europe after treaty eliminating ground-based, medium-range missiles, the U.S. envoy to the alliance said yesterday.

Ambassador Alan Keel said North Atlantic Treaty Organization ministers will discuss a range of weapons options and the modernization of short-range battlefield nuclear missiles and new types of cruise missiles. The elimination of U.S. ground-launched Pershing 2 and cruise missiles from NATO would leave the West with questions on how to maintain deterrence in the face of overwhelming Warsaw Pact conventional military strength.

"Cruise missiles will be one of those options - short as well as long range," Mr. Keel said.

He said the missiles could be carried by submarines in the North Atlantic and by dual-use aircraft, which could be armed with conventional or nuclear bombs.

In addition to smaller aircraft such as B-52, the British Government, in Western Europe, he said the Allies will discuss the possible use of B-52 strategic bombers, which could be flown from United States or from West European bases for deep-penetration raids into the Warsaw Pact countries in a war.

David Parnas draws attention to an important aspect of the INF Treaty - one not widely written about, namely, the stretched - out time table for implementing it. As David points out, the dismantling of weapons could be done quite rapidly, but the protracted time table allows military planners to compensate for the "loss" of these weapons. When the process is completed, therefore, the nuclear arsenal will be as bloated as before.

Are we then fooling ourselves if we believe that the INF agreement (if it is to be implemented) will to a certain extent attenuate the threat? That depends on how we, who insist on disarmament, act. If we allow ourselves to believe that the agreement was a cynical ploy to outflank the peace movement and that it has succeeded in doing just that, then by the logic of the self-predicting assumption we are the losers. On the other hand, if we believe that the INF agreement (if it is implemented) was a result of world wide political pressure and that the war planners suffered a political setback, then we derive additional strength from this success, however minute - again by virtue of self-predicting assumptions.

Any arms control measure should serve to kindle rising expectations. It is well known that struggles of underdogs are energized even by imaginary successes. There is a change in the political climate which may prove to be irreversible. The promised double summit and continuing negotiation of further arms reduction should get full support from a peace movement aware of the techniques of co-optation.

- Anatol Rapoport

US and Arms Control
"It will be during the 100th Congress that much of the roadmap of weapons developments and/or reductions will be charted for the next decade. If no major arms control treaty or treaties are concluded during this Congress, the informed pool of experience and the negotiating relationships built out in the last few years will be largely lost. The next president will start from scratch, build his own team, orient his priorities, and all this takes considerable time. The opportunity for concluding important treaties will probably not be available again until the early 1990's."
- U.S. Senate Majority-Leader, Robert Byrd, Council for a Livable World

and Space
"The Pentagon usurps civilian space programs," claims Congressman George E. Brown, Jr., (Calif.) of the House of Representatives Science, Space and Technology Committee and Permanent Select Committee on Intelligence in the November issue of Bulletin of the Atomic Scientists. "The Administration will have spent more than twice as much on SDI during 1987 as it has this year on NASA's entire space science and applications program. It will have spent 100% more on the development of directed-energy weapons than it has on space-exploration missions...they convey a resounding message about US priorities for the future of space."

Defence investors uneasy about nuclear arms deal

BY JOHN CUSHMAN
New York Times Service

WASHINGTON
Nobody is suggesting that good relations between the superpowers and sharp reductions in nuclear arms are anything but good news. But dispassionate investors are starting to ask how much progress on arms control will be reflected in corporate financial statements.
The Reagan Administration, which recently reached an agreement in principle with the Soviet Union on the elimination of medium- and short-range nuclear missiles from Europe, is characterizing the breakthrough as a first step that could lead to deep reductions in most classes of nuclear weapons. If that happened, would the weapons makers suffer financially?

Estimated conservatively, the market for all nuclear weapons and the ships and aircraft that can carry them is worth $35-billion (U.S.) annually. The big players in the market are the familiar military giants, according to Nuclear Free America, an anti-nuclear group. The top 10 in 1986: General Dynamics Corp.; McDonnell Douglas Corp.; Rockwell International Corp.; Lockheed Corp., General Electric Co.; Westinghouse Electric Corp.; Boeing Co., Eaton Corp.; Litton Industries Inc., and United Technologies Corp.

Quite honestly, if anything, there will be incentives to increase spending both on the conventional side and on the nuclear side, on other forces," said one congressional analyst who is preparing a study of the budgetary changes likely to result from a treaty on intermediate-range weapons.

Conventional, non-nuclear weapons have always been more costly than nuclear arms.

Today, with the continuing arms-control talks in Vienna seemingly bogged down - after 13 years - on conventional force reductions, analysts say nuclear weapons control might ultimately mean a rise in spending on conventional weapons - if the money can be found.

Any hope of scaring up the financial repercussions of disarmament must factor at least three unknowns into the equation. How far will the two sides travel on the road to nuclear arms reduction? How will the Strategic Defense Initiative program of space-based missile defenses - where many of the most advanced technologies under development might be applied - be affected by arms control? And finally, will the spirit of detente move the two nations to negotiate cuts in conventional, non-nuclear weapons as well, or will they respond to nuclear disarmament by building up conventional forces faster?

Financial analysts said that on balance, the answers to these questions imply continuing strength in the arms business. But, they added, that may not stop the market from reacting negatively to news of arms-control agreements such as the one expected to be signed on intermediate nuclear forces when Soviet leader Mikhail Gorbachev visits the United States later this year.

Free Trade
- George Ignatieff

As a former negotiator on trade for Canada at GATT, I am keenly aware that it is the "fine print" that is important if we are to judge the advantages or disadvantages of the Free Trade deal. Especially is this true of non-tariff barriers.

From what I have read, the terms of the agreement seem to be a retrograde step when perceived in terms of the aim of GATT, to guarantee equality of trading opportunity among all trading nations on a global rather than a regional basis; to abolish import quotas and counterervail duties, exchange controls and preferences; to provide machinery for general tariff reductions and removal of non-tariff trade restrictions; to curb the restrictive practices of monopolies and cartels and other measures hampering the free flow of trade between nations.

The agreement reached between the USA and Canada is continentalist and addressed primarily to American trading interests. The machinery for settling disputes is to be based on American Trade Laws, not GATT rules, in which aggregate concessions gained in bilateral negotiations are supposed to be generalized to the same products from all participants in GATT, under the Most-Favoured-Nations rule.

It is not the abolition of tariffs that is the challenge of the Canada-USA Free Trade accord. It is the actual rules, political barriers that others, as well as Canadians, see growing, with the USA as the unquestioned leader of a new economic bloc, working out its "manifest destiny" in its own interests. Gatt, on the other hand, offers, together with other international institutions like the IMF, the World Bank and the UN, a global approach more compatible with world interdependence. This results from the network of world communications and the increasing fluidity of world commerce and finance.

A "CWC" feasible

In October I attended a two-day conference on Implementing a Global Chemical Weapons Conference sponsored by the Canadian Centre for Arms Control and Disarmament. Six experts there had just returned from a trip to the largest chemical weapons production facility in the Soviet Union. Although many areas of the draft convention still need to be worked out, it was left with the impression that the CWC, with strict international monitoring, is technically feasible and politically possible.

- A. Walter Dorn
Bookshelf

The BULLETIN has a consignment of Walter Dorn's Peace - Keeping Satellites, published by PEACE RESEARCH REVIEW, PRI - Dundas, which may be advantageously ordered by members with an IUTS address. Cost of the book is $8.00. For those members outside the IUTS area, orders should be placed directly with PRI-D, 25 Dundana Ave., Dundas, Ont., Canada, LH4 4E5.

The October - November issue of PEACE MAGAZINE (736 Bathurst St. Toronto, Canada MSS 5R4) carries another article by Walter Dorn, "PAXSAT: A Canadian Initiative in Arms Control". His review of the CIIPS - SF Satellite Surveillance Workshop (7 July) will be available from the BULLETIN. It will be one of the first of the long-awaited "SF Occasional Papers" prepared by the Publications Committee.

GENSUUKIN NEWS (publication of the Japan Congress Against Atomic and Hydrogen Bombs) for Summer, 1987, takes a comprehensive look at "The Present State of Nuclear Power in Japan". With photographs, tables and maps illuminating the text, in a few pages a fairly clear picture emerges. The BULLETIN will copy for you on request. The publication is in English. By the way, you can subscribe directly: address: 4th floor, Akimoto Bldg. 2-19, Tsuchakacho, Kanada, Chiyodaku, Tokyo, Japan.

Current changes in personnel and potentially in programs at the United Nations makes a re-reading of John Holmes' little booklet, BEHIND THE HEADLINES, The United Nations in Perpetuity, important. From the CIITA, 15 King's College Circle, University of Toronto, Toronto, Canada MSS 2Y9.

A somewhat different perspective on the United Nations emerges from the Stanley Foundation report, "The United Nations and the Future of Internationalism", a report of the 22nd UN of the Next Decade Conference sponsored by the Foundation. The dominant outlooks expressed in the two documents are those of a middle power and a super power - the convergences are important.

Stanley Foundation publications are available directly from the Foundation at 420 East Third Street, Muscatine, Iowa 52761 USA.

A March, 1986 paper by Arnold Simoni, REGIONAL CONFLICT RESOLUTION: Background Paper, is as relevant today as when first offered through the BULLETIN. Discussion relating to Central America especially so.

Did you receive the October BULLETIN?

Robert Malcolmson, Moral Virtue and Nuclear Strategy, an essay in the Autumn 1987 issue of CIIPS magazine, PEACE & SECURITY. Requests to CIIPS.

Yves Belanger and Pierre Fournier of the Groupe de recherche sur l’industrie militaire et la reconversion have published a working paper on the Canadian military economy: L’industrie militaire canadienne et la problematique economique gouvernementale (Note de recherche no. 35, Dept. de science politique, UQAM). The paper can be obtained for $2 from Prof. Belanger, Dept. de science politique, UQAM, C.P. 8888, Succ. A, Montréal, P.Q. H3C 3P8 Canada.

The Redemption of Science was title of Anatol Rapoport’s contribution to an international conference on science, the humanities and religion, CONVERGING REALITIES, which constituted the twelfth annual conference of the Association for Baha'is Studies at Princeton University October 22 - 25.

Prof. Rapoport’s paper for the Princeton Conference is available from the BULLETIN.

Newsworthy

from Philippe Ehrensaft:

"I will establish a working group for those members interested in nuclear proliferation. Contact me via Bitnet - RI46444UQAM or at Dept. de sociologie, UQAM, CP 8888, Succ. A, Montréal, P.Q. H3C 3P8.

Robert Reford received a $10,000 research grant from CIIPS for a study of Canada’s national security interests in the Pacific.

John Holmes (CIITA, Toronto) was a Canadian participant in a joint CIIPS - Academy of Sciences of the USSR symposium in Moscow on issues of international peace and security in September.

Pat Alcock has joined Science for Peace’s growing staff as national office coordinator for the 1988 Arctic Conference, whose director -Franklyn Griffiths- is spending this year at Stanford University in California.

The Canadian government’s answer to protests about the renewed testing of the cruise missile by the US is "that the cruise now being tested is an airborne weapon, while the prospective European agreement covers only ground-based intermediate-range missiles."

- Robert Duff, TORONTO STAR

Soviet Arctic Policy

The attention of all Arctic nations, not least the USSR, has become noticeably focused on their relationship to that region of the globe since the increasing military interest in the area has become generally known. Canada’s "sitting duck" position between the two super powers has become an acute and potentially costly position as the DoD contemplates the purchase of 10-12 nuclear submarines to patrol and protect Canada’s interests and sovereignty there.

In a speech in Murnansk Oct. 1, Mikhail Gorbaachev outlined Soviet proposals aimed at a reduction of the level of military confrontation in the Arctic. A letter of transmission from the Soviet Embassy in Ottawa to Premier Jean Chretien states, "The Soviet side considers this programme as a ‘Northern Dimension’ of a comprehensive system of international security and as an invitation to all interested parties to a serious dialogue on the whole range of issues of security and cooperation in the North."

Copies are available from the BULLETIN or directly from the Press Office of the USSR Embassy in Canada, 400, rue Stewart St., Apt. 1108, Ottawa KIN 6L2.

Focus: Treaties

As its first "public venture" the new Markland Group (a brochure is enclosed with this copy of the BULLETIN) and the Canadian Institute of International Affairs co-sponsored a workshop on Treaty Compliance at Trinity College (U of Toronto) June 19. The workshop attracted eighteen lawyers or professors of law and diplomats who selected three areas of concern: treaty administration, international law, and national compliance legislation systems involving progressive publicizing of possible violations.

To continue the inquiry a second workshop will be held in late November or December with CIIPS support.

Founder and chairman of The Markland Group is SF member Douglas Scott. Other SF members participating in the organization are Hanna Newcombe, Bruce Conard and Walter Dorn.

At the Fourth Conference on Astronautics of the Canadian Aeronautics and Space Institute (Nov. 3 - 4, Ottawa) Walter Dorn will deliver a paper, Airborne and Satellite Verification of Arms Control Agreements: Past, Present and Future. The conference marks the 25th anniversary of Canada’s space program.
In Memoriam

JAMES MORRISON

Since 1969, Professor and Director of the Institute for Materials Research at McMaster University, Prior to his tenure at McMaster, Prof. Morrison spent twenty-two years at the National Research Council in Ottawa where he became Director of pure chemistry.

James Morrison was recognized as one of the leading Canadians in his field. A year ago, on his retirement from McMaster, his department honored him with a colloquium on surfaces, Anyone in touch with him was deeply impressed with his great integrity.”

- Ursula Franklin

Professor Morrison has been a member of Science for Peace from its early days.

Focus on Education

Vera Webb:

B.C. CHAPTER NEWS

Michael Wallace and Luis Sobrino are teaching a non-credit course on Nuclear War: Political and Scientific Issues at UBC. This is the second year that SfP has sponsored the course. We are hoping that once we have established the relevance of the issue it will be easier to institute a full-credit course. We are also hoping that Seymour Melman will be nominated as a Cecil and Ida Greene Visiting Professor for 1988-89. His field of study is the military economy and how it impacts the nation’s economy as a whole.

UN University

This hemisphere’s UN University for Peace was established by a General Assembly mandate in 1980. The Universidad Para La Paz is located in Escasu, Costa Rica, “on a mountain side in 700 acres of one of the few remaining virgin tropical forests in Central America. Costa Rica is a neutral nation that constitutionally abolished its army in 1949. Funds that would have been spent on weapons have been spent on education. Costa Rica has one of the highest literacy rates in the world.” (FUP)

The world’s attention has focused on the tiny nation in the past few months as its president, Oscar Arias Sanchez, provided the leadership for a move toward ending a generation of conflict in Central America and was awarded this year’s Nobel Peace Prize as a result.

Address of the University: Apartade 199, Escasu, Costa Rica

The Friends of the University Foundation at 145 East 74th St., Suite 1 C, New York, N. Y. 10021, will provide additional information.

Funding Research

Until a planned January, 1988, referendum among members of the American Math Society, the monthly Notices is providing a forum for debate on the issue of defense funding. Chandler Davis (U of T) discusses SDI as a funding source and the ethical implications of taking proffered funds in the November issue. The Bulletin will copy this section for you if you do not have access to AMS publications.

Images

Coming Nov. 13 in Montreal, a day-long Professional Development Institute as part of the Quebec Provincial Ass’n of Catholic and Protestant Teachers, P A C T/ P A P T annual convention. In cooperation with the National Film Board of Canada, the Institute will focus on “Images for a Peaceful Planet”, an exploration of ways of integrating film, video and imagery for peace in any subject area, K thru Adult Ed. Other collaborators are Peace Education Network/Quebec, the Professional Educators’ Development Service of McGill University and the Quebec Ass’n for Adult Learning. For more information, contact Joann Harrison, Education Office, NFB D-5, P.O. Box 6100, Station A, Montreal H3C 3H5, or Rosemary Sullivan, Pigeon Hill Peacemaking Centre, 1965 St. Armand Rd., Pigeon Hill, P.Q. J0J 1T0.

New McGill Course

"As of January, 1988, a 300-level course tentatively entitled 'Deterrence and Arms Control, War Avoidance and War Limitation will be given at McGill. Thanks to the good offices of Jim Tully, the Dept. of Political Science has agreed to be the sponsoring department for the course and will provide a substantial part of the funding and other resources. The (McGill) Study Group (for Peace and Disarmament) will contribute $2000 and several of the executive committee members will be giving lectures in the course. This course will be open to undergraduate students in all faculties across the campus.” - Don Bates, Chairman, MSGPD

The preceding statement comes from MSGPD’s annual report. Other actions of interest to SfP members: MSGPD sponsored the organization of the SAGE group of four Montreal teenagers who toured Canada with the NFB film, "If You Love This Planet", reaching 125,000 Canadian high-schoolers with their message.

The four young people accompanied the Canadian delegation to the Moscow 1987 IPPNW Conference where they contacted Soviet students.

Toronto Lectures

Wednesday lectures for November and December at University College: Clarke MacDonald, Freeman Dyson, Ian Hastie, Meyer Brownstone, John Lamb, Lila North. For information and programs, contact Eric Fawcett at 979-5217 or 486-9801.

The Harbourfront Free Forum in Toronto, in recognition of International Disarmament Week, presented a panel on Security and Alternatives to National Military Defence.

Peace Studies at UCSB

U.S. member Walter Kohn (Physics, University of California at Santa Barbara) is on the Steering Committee of the University’s Institute on Global Conflict and Cooperation. The Institute was established in 1983 to stimulate and support research and teaching at all campuses of the university on topics related to international peace and conflict. The Institute attempts to stimulate new and innovative research that will allow the application of scholarly insights from fields that have not traditionally been associated with the study of peace and security.
Presidents's Corner (cont.)

Such groups have already begun to form; most successful to date is a working group on International Surveillance and Verification led by Walter Dorn. This working group has sponsored a series of workshops, and Walter now serves as consultant to UN as well as other Canadian groups. Another working group focuses on chemical and biological weapons. A new group is being organized to explore questions about NORAD. The newly organized network of associate researchers and education directors is ready to assist in the formation of such working groups.

Moving ahead under the leadership of Franklyn Griffiths is a circumpolar conference on peace cooperation in the Arctic. This will be a major undertaking in cooperation with the Canadian Institute for International Peace and Security.

With this BULLETIN you receive a copy of the new brochure which describes in greater detail the activities of Science for Peace members. Pass it on to a colleague and ask for as many more as you can use.

George Ignatieff

a new voice...

Catherine Armstrong's is the voice that greets you when you call the Science for Peace National Office since October 1. She takes over as secretary for George Ignatieff and of Science for Peace from Molly O'Reilly who served as Science for Peace's first paid employee for a year.

Catherine is also editor of NEWS OF THE PHOENIX, newsletter for the Swansea Area Seniors Association, Toronto.

Polanyi in SCIENCE

A condensed version of the lecture delivered by John Polanyi when he received the Nobel Prize in Stockholm last year appears in the May issue of SCIENCE (AAAS, 1333 H St. NW, Washington, D.C. 20005 USA).

"The objective in this work," writes Polanyi, "has been one which I have shared with the other 1986 Nobel Lecturers in Chemistry, D.R. Herschbach and Y.T. Lee, as well as with a wide group of colleagues and co-workers who have been responsible for bringing this field to its current state." Some Concepts in Reaction Dynamics is the title.

Bulletin grows

Recommended by the Research and Education Directors and approved by the Board of Directors, the BULLETIN is to increase in size; this month to an authorized six pages, perhaps to eight later.

It is beginning to have a staff - Philip Wallace, Professor Emeritus of Physics, McGill University, former Principal of Science College, Concordia University, and Philip Ehrensaft, Professor of Sociology, Universite de Quebec a Montreal, take on responsibility for reviews for the BULLETIN. Plans are to develop a critical and helpful service for educators in peace and conflict studies.

A cautionary word, however, comes from SFP board member Ursula Franklin, who points out that she can read the BULLETIN as soon as it comes. Other, lengthier publications she has to lay aside for time to read - which may or may not come.

Massey Lectures

Gregory Baum (McGill) will deliver this year's Massey Lectures on the CBC Ideas series Nov. 2 - 6. His theme is "Compassion and Solidarity: The Church for Others". According to Michael Higgins (St. Jerome's College Waterloo), writing in the GLOBE & MAIL, the "Baum Massey Lectures are an effort to advance a critical social theory that enjoys the support of the Canadian Roman Catholic episcopate, Pope John Paul II and an increasingly vocal and influential minority in the church."

Science for Peace

OFFICERS

President: George Ignatieff
Vice-Pres: John Dove
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CHAPTERS

Science for Peace New Brunswick
G.P. Semeluk, Dept. of Chemistry
UNB, Bag Service #45222
Fredericton, N.B. E3B 5E2

Science et Paix Quebec
David W. Horwood
3540 Durocher, #12
Montreal, P.Q. H2X 2E5

Science for Peace Ottawa
A.B. Mingarelli, Dept. of Mathematics, Univ. of Ottawa
Ottawa, Ont. K1N 9B4

Science for Peace Toronto
Phyllis Creighton
U of T Press, 243 College Street
University of Toronto
Toronto, Ont. M5S 1A1

Science for Peace Waterloo
David Roulston, Dept. of Electrical Engineering
University of Waterloo
Waterloo, Ont. N2L 3G1

Science for Peace Brock
Peter Nicholls, Dept. of Biology, Brock University
St. Catharines, Ont. L2S 3A1

B.C. Chapter Science for Peace
Vera Webb, Dept. of Microbiology
University of British Columbia
Vancouver, B.C. V6T 1W5

Editors: Gwen Rapoport
Philip Wallace
Philipe Ehrensaft

BULLETIN enquiries: (416) 656-5496
National Office: (416) 978-6928
Monday - to Friday, 9am - 5pm