



Science for Peace

BULLETIN

Vol. 8 No. 3 March 1988

Letter from the President

Science for Peace, ever since its foundation in Toronto, was intended to be a national network of scientists working for peace from coast to coast, with associates world-wide. The establishment of Chapters in New Brunswick, Quebec, Ontario and British Columbia is witness to the fact that at least a basic federal network exists. The problem has been to reflect and strengthen this federal network appropriately in the organization of Science for Peace. An important step was the establishment of a network of research and education directors, which was the product of the innovative efforts of Paul LeBlond and Anatol Rapoport; this has served to bring some coordination between the national office and chapter activities. In addition to the Toronto Chapter, which provided our founding fathers and mothers, the B.C. Chapter in particular has been active in organizing successful conferences and seminars and in compiling important publications.

The latest step towards building a national network was taken, after discussion by the Board, by calling a Special General Meeting on February 11, to consider rotating the executive among the more active chapters, starting with Vancouver, while retaining a national office in Toronto. The discussion of this issue revealed that members were by no means unanimous, but sufficient approval was forthcoming to advise the nominating Committee to seek candidates for a Board and executive more representative of other centres in Canada, especially from B.C.

This experiment, to be successful, will require volunteers in all chapters to do specific jobs. There is an immense amount of work to do as the nuclear debate becomes increasingly focussed on such issues as the Defence White Paper, the demilitarization of the Arctic, the further reduction of nuclear stockpiles following the INF agreement and the safeguarding of our ecological environment, as well as the prevention of nuclear war. I believe that members will wish to give this experiment every chance of success.

George Ignatieff

INTERNATIONAL CONFERENCE ON ARCTIC COOPERATION Toronto, 26-28 October 1988

A conference of experts on Arctic cooperation, jointly sponsored by Science for Peace and the Canadian Institute for International Peace and Security (CIIPS) is to be held in Toronto from 26 to 28 October 1988. The basic premise of the conference is that the best chance for reducing tension in the Arctic is to build confidence through international scientific and technical cooperation. Participants will include representatives of the northern populations who are most directly affected by Arctic militarization and industrialization, and physical scientists, technical experts, and social scientists with specialized knowledge of issues of importance to the Arctic regions. The conference will be truly international in scope; we are inviting representatives from all of the Arctic countries, namely Canada, Denmark, Finland, Greenland, Iceland, Norway, Sweden, the USA and the USSR, and also from Britain, Japan, and West Germany.

The first two days of the conference will be devoted to invited papers and discussion. On the final morning, the main themes of the conference will be drawn together in panel discussions, and specific opportunities for cooperation among the Arctic nations will be examined.

The work of preparing for the conference is being done by a committee chaired jointly by John Dove (SfP Conference Coordinator) and Ron Purver (CIIPS) and including Frank Griffiths (Programme Chairman), George Ignatieff, John Valleau, Jan DeKoning, and Bobbie Weatherley. The programme that

has been put together very ably by Frank Griffiths is outlined below.

I The Regional and Global Context

- 1 Unities of the Arctic Physical Environment
- 2 Industrialization and its Consequences
- 3 Militarization and the Aboriginal Peoples
- 4 Political-military Relations among the Ice States

II The Arms Race and Arms Control

- 5 Naval Interaction
- 6 Missile Defences, Cruise Missile and Air Defences
- 7 Military Doctrines and the Risk of War
- 8 Confidence-Building Measures

III Scientific Cooperation

- 9 Global Science and the Arctic; Status and Prospects
- 10 Ethnoscience and Prevailing Science
- 11 Knowledge Requirements for Ocean Management
- 12 Arctic Airborne Pollution and the Greenhouse Effect

(continued ...)

IV Technical and Cultural Cooperation

- 13 Exchange of Experience in Arctic Marine Transportation
- 14 Offshore Oil Exploration
- 15 Cultural Exchanges
- 16 Public Health in the Circumpolar North

V Conclusions

- 17 Panel: Opportunities and Constraints on Arctic Cooperation
- 18 Panel: Interrelations between Non-military Cooperation and Confidence-Building
- 19 Panel: Agenda for Arctic Cooperation: Specifics

CALL FOR NOMINATIONS

for the next Board of Directors and Executive.

The Annual General Meeting of Science for Peace will take place in about two months, so that nominations are now needed for election to the new Board of Directors. The present Board is listed in this year's brochure. As usual, the terms of office of about half of the present Board end in 1988; all are eligible for nomination, as well as people who are not now on the Board. The present Board has 7 women and 34 men, the largest percentage of women that we have had, but still unbalanced in gender representation. The terms of office of the following members of the Board of Directors end in 1988:

Walter Dorn (Toronto), Philip Ehrensaft (Montreal), Cynthia Folzer (Waterloo), Terry Gardner (Toronto), David Horwood (Montreal), Robert M. Korol (Hamilton), Margarida Krause (Fredericton), Michael Lanphier (Toronto), Paul LeBlond (Vancouver), Robert Malcolmson (Kingston), Peter Nicholls (St. Catharines), David Parnas (Kingston), Derek Paul (Toronto), David Roulston (Waterloo), Norman Rubin (Toronto), Frank Thompson (Waterloo), Lynn Trainor (Toronto), Michael Wallace (Vancouver), Philip Wallace (Pointe Claire).

All of the Executive positions - President, Executive Vice-President, Secretary, and Treasurer, are open for nominations. Elections to these positions will take place at the Board meeting immediately following the Annual General Meeting. Send nominations to the Chairman of the Nominating Committee, Science for Peace, University College, Toronto, M5S 1A1.

MISSING OR STRAYED?

We are now transferring our membership and mailing lists to the computer in the National Office. Experience shows that no matter how carefully such a change is made, some errors will occur. If you become aware that we have lost touch with a colleague in this process, please ask him or her to get into touch with the National Office. (We resist the temptation to ask you to let us know if this message fails to reach you!)

CONFERENCE ANNOUNCEMENT

Professionals and Social Responsibility: Conflict or Congruence?

Conference to be held at the University of Waterloo
Siegfried Hall, St. Jerome's College
16-18 March 1988

Keynote speaker, Wednesday evening
Jack Stevenson

University of Toronto, Department of Philosophy
author of Engineering Ethics: Practice and Principles

Thursday Morning: "Ethical Codes for the Professions"

Speakers: Mark Frankel (AAAS, USA), Stephen Unger (Columbia University, USA), Leonard Brooks (University of Toronto, Canada)

Panel: "Ethical Codes in Practice"

Chair: Conrad Brunk (U. Waterloo, Canada)

Panelists: Abbayann Lynch (Westminster Institute, London, Canada), Arthur Schafer (U. Manitoba, Canada), Will Waluchow (McMaster U., Canada)

Thursday afternoon: "Global Peace and Human Rights"

Speakers: Rose Sheinin (U. Toronto), Israel Halperin (Canadian Committee of Scientists and Scholars), Anatol Rapoport (U. Toronto)

Panel: "Global Peace as a Professional Concern"

Chair: Tom Perry (Physicians for Social Responsibility, Vancouver)

Panelists: TBA

Friday: "Activist Groups"

Guest Speaker: Beth Savin (U. Toronto)

Speakers: Margaret Keating (nursing), Gary Chapman (computer science), Karen Messing (health & safety), Michael Rachlis (medicine), Steve Shrybman (law), Jeffrey Tyndall (engineering); C.C. Gotlieb and Robin Cohen (educating future professionals), Willem Vandenburg (conference wrap-up)

Registration: \$120 includes all sessions, 2 lunches, Thursday banquet. Special student price: \$25 (banquet excluded). Pre-registration is highly recommended.

For more information write:

Centre for Society, Technology and Values
University of Waterloo, PAS 2061
Waterloo, Ontario N2L 3G1
Tel: (519) 885-1211, ext. 6215

**Report on the
SPECIAL GENERAL MEETING**

Thursday February 11, 1988

A meeting which may well mark a turning point for Science for Peace took place recently in the Croft Chapter House of University College, University of Toronto. The Board had called this meeting of members to consider rotating the National Executive among our larger Chapters, and in particular to invite the British Columbia Chapter to undertake the responsibility for the Executive for 1988/89. Below are the opening address of the President to this meeting, followed by the minutes and two important letters relating to the matter under discussion. As you will see, the opposition to the motions turned mainly on constitutional and procedural matters rather than on the appropriateness or wisdom of the proposed move.

President's Opening Remarks

This special general meeting of Science for Peace has been called by the Board of Directors under Article 22 of the by-laws that empowers the Board to call a general meeting at any time, to consider an important motion originally proposed by Terry Gardner and Ray Kapral that the Board of Directors recommend to the members of Science for Peace:

- a) that the national executive rotate among centres where Science for Peace has substantial strength;
- b) that in 1988-89 this transfer be made to Vancouver provided the B.C. Chapter be willing to accept the responsibility.

You will note that this motion has two parts: the first dealing with the idea of rotating the national executive among centres where Science for Peace has substantial strength; the second with the proposition that for 1988-89 the B.C. Chapter be invited to accept this responsibility. The discussion and any voting should be addressed to these parts separately.

As regards (a) I should recall the provision of the by-laws: that "The Head Office of the Corporation shall be in the City of Toronto in the Municipality of Metropolitan Toronto in the Province of Ontario and at such place therein or in the Municipality of Metropolitan Toronto, as the Directors may from time to time determine." As regards part (a) of this motion, I have been asked to read a statement by Eric Fawcett, the Founding President of Science for Peace.

As regards (b) I have been asked to read a message received by electronic mail from Paul LeBlond, on 28 January reporting on a meeting of the B.C. Chapter on 27th January.

We have here both Paul LeBlond, Research Director of Science for Peace, and Jim Foulks, who have come from Vancouver to elaborate on the position of the B.C. Chapter and to respond to questions.

Finally, I emphasize that this special general meeting, of the whole membership, notice of which was circulated to all members, unfortunately owing to climate and distance has resulted in limited attendance. I hope consideration will be given to consulting members from other regions as well. We are facing the necessity of change in any case, as the present members of the Executive have indicated that they are not willing to serve beyond the 1988 General Meeting, while being willing to help in

any way we can, especially in holding the Arctic Conference at the end of October.

Minutes of the SGM

Minutes of Special General Meeting of Science for Peace, February 11, 1988, Croft Chapter House, University College, University of Toronto

Present: N. Alcock, C. Armstrong, P. Brogden, P. Creighton, C. Davis, J. Dove, E. Fawcett, J. Foulks, T. Gardner, G. and A. Ignatieff, M. and R. Kapral, Moira Kapral, W. Klassen, J. King, P. LeBlond, M. Lanphier, D. Lee, A. MacLeod, D. Paul, G. Papachristos, A. and G. Rapoport, A. Simoni, J. Smith, M. Spencer, L. Trainor, J. Valleau, J. Vise, A. and R. Weatherley, M. and M. Wilton, W. Zessner.

There were two items on the agenda. The second item having to do with tidying up the by-laws was dealt with only as an announcement by the Secretary that the proposed changes will be circulated before the Annual Meeting in May and dealt with at that time.

The main item on the agenda was the Kapral/Gardner motion which had been previously circulated. It had two parts, as follows:

- i) that the national executive rotate among centres where Science for Peace has substantial strength
- ii) that in 1988-89 the transfer be made to Vancouver, provided the B.C. Chapter be willing to accept the responsibility.

The President, George Ignatieff, first read (as directed by a motion at the February 9 Board meeting) two statements which had been submitted to the Bulletin as part of the rationale for moving the SFP executive from Toronto to Vancouver. One of these was from the founding President, Dr. Eric Fawcett, the other was a statement from the Vancouver Chapter. These statements along with a prepared statement by Dr. Ignatieff are included here.

Dr. Ignatieff stated, that in order to avoid any possible conflict of interest in handling the meeting, since he supported rotating the executive, he would like to have Dr. Klassen take the Chair. No objections were raised.

Dr. Klassen then took the Chair and opened the meeting to discussion. The discussion was started by Dr. Rapoport who asked that the movers of the motion clarify the consequences both under the circumstances that motion passed or that the motion failed.

Dr. Gardner then spoke to the motion, saying that the movers regarded this a great opportunity to fulfill a long-term desire, that since the four members of the present Executive were not continuing, there would be discontinuity in any case, and hence the time to move was propitious. He hoped that if the motion passed, the Nominating Committee would give consideration to a slate of officers mostly or entirely from the Vancouver Chapter and would consult that Chapter extensively in making nominations. He concluded his remarks by stating that the move to Vancouver and the widening of the decision-making base was an exciting prospect.

The discussion following Dr. Gardner's presentation was animated, lively and at times contentious. Your Secretary will not

present the discussions verbatim, but humbly try to recapture the spirit of the discussions.

A central point was whether the whole procedure was sufficiently democratic and perhaps even whether presentation of the motion was constitutionally correct, given that the representation of the meeting was mostly Toronto area with the exception of two delegates from Vancouver; further did the motion not imply that the nominating process would be compromised by these procedures? Counter arguments were that SfP meetings, both Board and Annual, generally had attendances similar to or smaller than the present meeting and also lacked national representation, and this unhappy circumstance was part of the reality of funding and Canadian geography; that the final decision on elected representatives to the Board would be made at the Annual Meeting, including election of officers by the new Board. The Secretary expressed the view that the Nominating Committee is not a policy-making committee, but that its chief purpose is to make sure there is a credible set of Directors and Officers prepared to serve if elected in due process.

Dr. Rapoport put forward a proposal for a nominating procedure, but the proposal was not specifically acted upon at the meeting.

Several members drew from the experience of other national organizations where the Head Office remained in a fixed location but the executive officers rotated from one location to another.

Dr. Rapoport again raised constitutional objections stating that the motion usurped the powers of the new Board in selecting officers beforehand. Some other members disagreed with this interpretation. The Chairman ruled that the motion was properly before the meeting. Dr. Davis then suggested that the two parts of the motion be considered seriatim. The mover and seconder agreed and the Chairman then placed the first part of the motion before the meeting. On further objection from Dr. Rapoport, the Chair asked the mover and seconder if they would agree to placing the motion as a resolution of the Board for adoption rather than as a motion. They agreed. Dr. Rapoport then asked for a secret ballot. Dr. Dove objected on the grounds that SfP by-laws do not make allowance for a secret ballot. Dr. Rapoport then asked that the members be polled. John Valteau supported this right and the vote was taken by poll with the result of 20 in favour, 9 opposed and 3 abstentions.

The Chairman pointed out that time was running out and that the room was to be vacated at 10:00 p.m. Gwen Rapoport moved that the meeting be adjourned. This motion was rejected by a large majority. The second part of the Kapral/Gardner motion was then carried with little further discussion by a substantial majority but with several abstentions.

Dr. Gardner then asked to put a motion that would answer in part the question raised by Dr. Rapoport at the beginning of the meeting as to what would follow if the motion passed. The Chairman agreed to accept putting the motion (Gardner/Valteau) as follows:

"In order to carry out the wishes of the Science for Peace membership expressed in the preceding motion,

- (i) the Nominations Committee should seek to present to next year's Board of Directors nominations for the Executive Officers from the Vancouver region, and attempt to propose increases in Western representation on the Board of Directors to the Annual General Meeting, and

- (ii) to assist in this an active member of the B.C. Chapter should be elected to join the Nominating Committee."

Dr. Rapoport again expressed concerns about forcing the hands of the new Board. Dr. Paul then stated that fully democratic procedures were not always possible, and indeed that in his experience on previous Nominating Committees a lot of arm-twisting had to be done to get suitable candidates for Board and Executive.

Paul LeBlond from the Vancouver Chapter felt that the second part of the motion was not necessary. The 2 members of the Nominating Committee (Lanphier/Rapoport) also objected. Dr. Lanphier felt it unworkable at this late date, and Dr. Rapoport felt it expressed lack of confidence in the present committee. The mover and seconder agreed to drop the second part, which drew applause. The first part was then put and carried by a substantial majority.

After a brief remark on the second item by the Secretary (see above) the meeting adjourned at approximately 10:15 p.m. George Ignatieff, President Lynn Trainor, Secretary

Result of poll vote:

In favour: N. Alcock, P. Brogden, C. Davis, J. Dove, E. Fawcett, J. Foulks, T. Gardner, G. Ignatieff, M. Kapral, Moira Kapral, R. Kapral, J. King, P. LeBlond, D. Paul, M. Spencer, L. Trainor, J. Valteau, J. Vise, A. Weatherley, R. Weatherley,

Opposed: P. Creighton, M. Lanphier, D. Lee, A. MacLeod, A. Rapoport, G. Rapoport, M. Wilton, Murray Wilton, W. Zessner

Abstentions: J. Lee, G. Papachristos, A. Simoni

Report on meeting of the B.C. Chapter

The B.C. Chapter of Science for Peace held its monthly membership meeting on Wednesday the 27th of January. The main item on the agenda was a discussion of the recommendation to be presented by the Board to the forthcoming Special General Meeting in Toronto. As it seemed appropriate, the matter was discussed informally.

First, the question whether the Executive should be rotated among different centres was discussed. A strong consensus emerged in favour of this recommendation. The underlying theme was that it is important for Science for Peace to be a national organization and at present it was not perceived as such by the members of our Chapter. It was pointed out that the great majority of the Board members are from the Toronto area and that Board and General meetings are always in Toronto, which makes it very difficult for individual members throughout the country to contribute their views to the organization. In the past, the B.C. Chapter has undertaken some projects of national scope. Members felt that these projects could have been carried out more effectively had Science for Peace worked at the time as a truly national organization.

On the question of the National Executive being moved to Vancouver, the discussion centered on the practical difficulties that would ensue. It was felt that these difficulties were not insurmountable. Communication by electronic media and telephone with those officers that are expected to remain in Toronto

appeared to be quite feasible. No one is overjoyed with the idea of the executive being in Vancouver but, since the principle of rotation was strongly endorsed, the members felt that if Science for Peace were to issue an invitation to form the executive in the Vancouver area, it would be their duty to do whatever they could to answer affirmatively.

Luis Sobrino, Acting President, B.C. Chapter.

Letter from the Founding President of Science for Peace

Science for Peace from the start was intended to be a national organization. Any Canadian knows however that an organization conceived and nurtured in Toronto like Science for Peace will be perceived as national only when it shows itself capable of devolution. The transfer of the seat of power across half a continent may be inconvenient - but it is necessary if we are to consummate our promise.

It was easy to start the first few Science for Peace Chapters. They existed already in embryo form in Vancouver and Fredericton, and their leaders recognized at once the virtues of association within a national organization. The acquisition in 1983 of a National Office in University College through the generosity of Principal Peter Richardson did not deter us from making overtures to the B.C. Chapter about the possibility of such a transfer in 1984. Our model was the Canadian Association of Physicists, which like many national organizations has successfully decoupled its national office (in Ottawa) from the national officers, who from year to year reside in physics departments across Canada. The Canadian Physicians for the Prevention of Nuclear War has operated in this mode very successfully since 1986, when their national office was established in Ottawa - they now have about 4000 members and conduct their National Executive meetings by computer network, with only two Board meetings per year held in the most convenient location.

Our great good fortune, first in 1984 when Anatol Rapoport accepted the Presidency, and then in 1986 when George Ignatieff assumed the leadership, has enabled Science for Peace to mature and become the widely respected organization it is today. It is however not a truly national organization with 31 out of 43 Board members from Ontario! I believe that the time is already late - further postponement makes the devolution more difficult, and the self-serving arguments against it become even more persuasive as power becomes more deeply entrenched in Toronto. My present role in Science for Peace as Convener of the Toronto Chapter Public Lectures has taught me that the vigour of the local organization does not derive from the presence here of the National Executive - indeed on the contrary it diverts the support of some of the most active members. I propose that, after the transfer of the National Executive to Vancouver, our "South-West-Ontario Regional Group" should continue to meet regularly. I believe that educational and research activities within such a group will be greatly enhanced when our energies are released from the responsibility of maintaining the national activities.

Eric Fawcett, Founding President of Science for Peace

HANS BLUMENFELD - IN MEMORIAM

Many of Hans' friends, relatives, colleagues, students, and admirers gathered to pay tribute to him in Convocation Hall, University of Toronto, on the afternoon of February 26th, 1988. The thoughts of many of us were put into wonderfully apt words by our President, George Ignatieff:

"We are gathered to pay our respects to Hans Blumenfeld. Hans would not have wished his friends and admirers to mourn his death. For his was an exceptionally rich life, full of great causes and dedicated to the well-being of others, not only in this city, in this country, but as a true citizen of the world.

I will speak only of his contribution to the peace movement. Having experienced wars at first hand as well as revolutions, Hans joined others in emphasizing the sanctity of life and working for the substitution of aggressive human tendencies by the quest for cooperation to ensure that our creative potential should be fulfilled. His intense commitment to peace was indeed the culmination of his extraordinary, creative career that spanned many disciplines and many interests represented here today. I would only mention, as President of Science for Peace, that one of his last benefactions was to turn over to the organization of which I am President, the Franz Blumenfeld Fund, set up in memory of his brother killed in World War I, to support creative thought and action in the cause of peace.

His remarkable autobiography "LIFE BEGINS AT 65" apart from making fascinating reading, contains the best prescription for longevity of which Hans was such an outstanding example; to be caught up in a cause in the service of others. Hans loved his neighbours in the best way that love can be expressed; by helping them in every way that he could. He has earned our eternal memory and gratitude."

Franz Blumenfeld Peace Fund

In memory of Hans Blumenfeld, members may wish to consider contributing to the Franz Blumenfeld Peace Fund, mentioned above. The Fund consists of an endowment, the interest on which supports projects in peace education and research; the present value of the endowment is just over \$40,000.

Donations to the Fund are tax-deductible. Cheques should be addressed to Science for Peace, with an accompanying letter stating that the donation is intended for the Blumenfeld Fund. Enquiries should be directed to Professor Christian Bay at Science for Peace, University College, University of Toronto, Toronto, M5S 1A1.

FOR GWEN

Members will be sorry to hear that Gwen Rapoport has resigned from her position as editor of the *BULLETIN*. Science for Peace owes a great deal to her for her hard work and determination in ensuring that the *BULLETIN* appeared with the regularity of clockwork, month after month. We can only hope that we shall be successful in following this example that she has set for us.

John Dove

**Science for Peace
ELECTRONIC MAIL DIRECTORY**

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If you would like to have your name added to this directory, please notify Phil Ehrensaft, Electronic Mail Coordinator, Science for Peace, R14644@UQAM.BITNET. Please also let him know whether you are willing to act as electronic mailbox for messages sent to your Chapter from the National Office.

ON THE FUTURE OF THE "BULLETIN"

To our readers! For many of you, the *BULLETIN* is the main point of contact with Science for Peace. What would you like to see in the *BULLETIN*? To start a debate about future form and content, Phil Ehrensaft sent the following message by electronic mail from Montreal:

The following comments on proposed changes in the Science for Peace Bulletin summarize discussions among Montreal members of SFP. They are predicated on an appreciation of the energies Gwen Rapoport devoted to making the Bulletin a going concern as a monthly and improving a publication which has appeared thanks to her time and efforts.

Two kinds of changes would benefit the Bulletin and help Science for Peace as an organization.

First, the Bulletin should have greater substance. There should be articles, debates, and reviews which are long enough to be thoughtful and catalyze discussion. This would mean a

review which has more pages than at present. If the choice is between monthly publication versus a more substantial Bulletin, I think the choice should be a bimonthly or even quarterly publication.

One possible format would be to have members with expertise in a variety of areas make regular contributions on important developments in their areas of expertise. Another format would have issues organized around special themes. The two formats could be combined. The objective is to use the collective knowledge and expertise of our members in a Bulletin which would be eagerly read by members, other people in the peace movement, and policy-makers. In short, I think organizational matters should be discussed in occasional newsletters. The Bulletin should be turned into a serious publication which makes full use of our intellectual resources.

Secondly, in order to get the message across, we should use desktop publishing software on a computer to produce the final layout. I don't know if people ought to pay so much attention to appearances, but, in fact, they do, and we should organize ourselves accordingly.

In summary, we should

- 1) change the Bulletin into a more serious publication;
- 2) organize as much work for the Bulletin as possible via Bitnet electronic mail (money saved on long distance calls as deadlines approached would quickly pay for a modem);
- 3) have text delivered by Bitnet or on diskettes, to minimize typing work at the SFP office, and
- 4) have someone use a basic desktop publishing software program (no need for anything too fancy) to turn out professional-looking galleys on a quality laser printer.

Phil Ehrensaft

In a subsequent message, Phil agreed that it is important to keep members in close touch with the activities of SFP. He suggested that we might continue monthly publication of the *BULLETIN*, with special review issues containing longer articles (say) every three months. Incidentally, we will of course accept contributions in either of the official languages.

Please send your opinions to the National Office or by Bitnet to DOVE@UTORPHYS, JVALLEAU@UTORONTO, LTRAINOR@UTORPHYS, and SP@UTORPHYS (Derek Paul, member of the Publications Committee), so that we may present them to the Board of Directors in the near future.

John Dove

Editors' note: We thank all who sent in contributions. We are sorry that there has not been space for all submitted material, and that we have had to shorten the book reviews somewhat, preserving, we hope, the essential points.

BOOK REVIEWS

STRATEGY AND THE ARCTIC, 1986, ed. R.B. Byers and M. Slack, Canadian Institute of Strategic Studies, Polaris Papers. 116 pp. \$14.

The editors write that this volume draws attention to "the current military-strategic environment and relates this to the future strategic importance of the Arctic from both the Canadian and international perspective."

J.R. Gibson notes that the Soviet Arctic is twice as big as the Canadian Arctic, has only about 550 fisheries, at least 1,000 times more cultivated land and a population, at 7 million, 100 times larger than in the Canadian Arctic. There are great mineral and oil reserves in both Arctics, but it is the USSR that has the population and historical experience to exploit them. These simple economic facts render the Soviet Arctic of greater importance to the USSR than is the Canadian Arctic to this country.

Ron Purver points out that, for the Soviet Union, the Arctic, far from being a frozen wasteland, contains at least 9 cities of more than 100,000, and exploits huge resources of gold, nickel, tin and diamonds, in addition to oil. The Northern Sea Route also handles 1.5 to 3 million tons of cargo annually for the USSR. Purver gives a useful listing of, Arctic military activities, including Soviet deployment of missile-carrying submarines under ice, and the corresponding US counter-deployment of nuclear-powered attack submarines. He concludes, however, that Arctic arms deployment by the USSR is as yet quite limited compared to deployments elsewhere.

George Lindsey writes of the history of the DEW line and NORAD, emphasizing the Arctic's importance as a strategic buffer zone, viewing the significance of the Arctic in possible future conflicts as a region where sea lanes must be defended and sophisticated early-warning systems will be increasingly deployed. However, as yet "the strategic significance of the Canadian Arctic is not enormous and is unlikely to change much unless there are significant economic developments."

To John Gellner, the Canadian Arctic is a "strategic forefield" over which control must be established, preferably by Canada. However, Gellner claims that Canadian Northern sovereignty has been questioned by the US and he notes, rather ominously, that Great Powers take whatever steps they deem necessary to maintain their security.

Ron Purver, writing on arms control prospects, provides a valuable 30-year sketch of proposals, including the creation of nuclear weapons-free zones (NFZs). Many technical and political obstacles have bedevilled the various proposals, though many have great attractiveness, e.g. Hanna Newcombe's idea to phase out nuclear weapon systems and to give Arctic early-warning systems to international agencies which would freely distribute information to all states of the region. Purver warns that it is unrealistic to suppose that the USSR will agree to a NFZ because its interests in the Arctic - including its submarine ballistic missile fleet bases - are critical. However, he notes that the Soviets have initiated many calls for rules to restrict strategic missile-carrying submarines from too close an approach to an adversary's shore "without eliciting any response from Washington."

In considering development and political change in the north,

Nancy Weeks refers to appalling mismanagement of native affairs that earlier led to long-term separation of children from their societies and families in the name of education. Despite government determination as late as 1919 that the indigenous peoples be assimilated "into the Canadian mainstream", land claims movements are now gathering strength. Weeks believes that the main problem to come will be how to arrive at equity not between natives and Europeans but between indigenous peoples themselves. Eric Solem warns that the low population and sparse military installations make the Canadian Arctic vulnerable to hostile penetration. Even if such penetration were essentially diversionary, it implies need for a better security and surveillance system. Solem notes, in reviewing the Canadian Arctic oil search, that an oil discovery "breakthrough does not appear imminent" and that "the economic perspective on ... Beaufort Sea activity is not promising." He considers that, especially because of low population and possible future disputes over Canadian Arctic sovereignty rights, this country should move immediately to augment its security forces and manifest its right to the region by enhanced and sustained activity.

Elizabeth Young, in stressing the enormous importance to the USSR of the Soviet Arctic's economy and further development, details many of the problems (including legal ones) that threaten the prospects of international management for the Arctic as a whole. She refers to the advantages and needs relating to scientific cooperation in the Arctic and also, with approval, to a "current arms proposal" in which the Arctic would provide sanctuaries for different countries' strategic missile-launching submarines, i.e., guarantee their immunity against the anti-submarine warfare of others. This point is also noted by other contributors.

This short but very worthwhile volume deserves careful reading by all those interested in Canadian far-northern development, security, and sovereignty. To assess risk to Canada through its vulnerable Arctic we need to know about the Arctic's past, present, and future in human and material resources and problems. To obtain advantage from the north we must take stock of the kind of place it is, and here the comparisons with the Soviet Arctic are illuminating. It is clear that to secure the north and provide for its people we must spend vastly more time, money, effort, and thought on northern affairs than is now being done.

Alan H. Weatherley February 1988

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BREAKTHROUGH: EMERGING NEW THINKING is a stimulating collection of articles written by Soviet and American scientists and edited jointly by Anatoly Gromyko, Director of African Studies in Moscow University and Martin Hallman, Professor of Electrical Engineering at Stanford University. It is published in English by Walker and Co., 720 Fifth Avenue, N.Y. 10019, and in Russian by Progress Publishing Co., Moscow.

The "new thinking" that is inspired by this publication will not be unfamiliar to members of Science for Peace. Our brochure carries a quotation from Einstein from the fifties: "We shall require a substantially new manner of thinking if mankind is to survive". What is new is that at a time when the change of leadership in the Soviet Union has released a stream of new ideas and new proposals for the prevention of nuclear war, we find a

response in kind from American scientists working together with their Soviet counterparts to trace "an evolutionary path" (as the joint preface states) to ending all war.

The key to such new thinking owes much to the pioneering done by the late Olof Palme in defining the need for policies of common security to replace policies of national security. The book is divided into three sections: the nuclear imperative, global thinking that must replace war thinking, and the process of change. What we find in these essays is more of a "break-through" in communication between the diverse societies of the USA and USSR than a panacea for peace. But that, coupled with some progress in arms control negotiations is itself important.

George Ignatieff

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OUR COMMON FUTURE, 1987, Report of the World Commission on Environment and Development, (Oxford University Press); and *OUR COMMON FUTURE - A READER'S GUIDE* (Earthscan Books Ltd., 1987).

Mrs. Gro Harlem Brundtland, Prime Minister of Norway and Chairman of the World Commission on Environment and Development (WCED) observes, "We live in an era in the history of nations when there is greater need than ever for co-ordinated political action and responsibility." The report of the WCED, known colloquially as *THE BRUNDTLAND REPORT*, was published under the title "Our Common Future" in April 1987 and presented to the General Assembly of the United Nations in the fall of that year. It was the result of nearly three years of study, debate, and world-wide hearings. The Commission's main task was to come up with a global agenda for change. Its mandate spelled out three objectives: to re-examine the critical environment and development issues and to formulate realistic proposals for dealing with them; to propose new forms of international co-operation on these issues that will influence policies and events in the directions of needed changes; and to raise the levels of understanding and commitment to action of individuals, voluntary organizations, businesses, institutes and governments.

The full report is a formidable 400 pages long and demands some digesting, while the *READER'S GUIDE* is shorter, more concentrated, and is arrestingly illustrated with vivid and telling photographs. The main broad headings are: Towards one world; sustainable development; a more equitable international economic system; population issues; food security; the urban challenge; energy problems; industry producing more with less; species and ecosystems; the oceans; antarctica and space; conflict and environmental degradation; the threat of nuclear war.

Sustainable development is a core aspect of the report and is defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs. On this and on the need to evolve a new, more equitable international structure nothing less than a renaissance in economic decision making will be required. The commission opts for a low-energy future, firmly grounded in efficiency and conservation. Security must be broadened to include security from environmental degradation and pre-emption of developmental options.

The Commissioners came from 21 very different nations but were nevertheless able to agree about the directions of the necessary institutional changes. They concluded with a call for action, asking the United Nations to transform their report into a UN program for action on sustainable development, and saying, "We are unanimous in our conviction that the security, well-being, and very survival of the planet depend on such changes, now."

John R. Ashton February 1988

(The above is a precis of a much longer review by John Ashton, a copy of which may be obtained from the Science for Peace office on request.)

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