A Word from the Editor

Reversing the chain reaction of proliferation

In 1995 the atomic bomb will be fifty years old. Five decades ago scientists and engineers induced a physical chain reaction which released a huge amount of destructive power. This event later initiated a political chain reaction of proliferation. While the two superpowers developed and modernized tens of thousands of nuclear weapons and related delivery systems (vertical proliferation), a number of countries attempted to imitate their capabilities, creating a domino effect of horizontal proliferation. How deeply vertical and horizontal dimensions are interconnected can be seen from the Gulf War and the recent nuclear crisis in North Korea, which induced military counterproliferation initiatives in the USA and other countries.

Scientists and engineers were among those who created the vast nuclear arsenals and helped in spreading knowledge and technology for nuclear weapons around the world. Therefore, the international community of scientists and engineers has a major responsibility for stopping and reversing this spread. Positive examples include those scientists who, during the Cold War, established world-wide communication channels which influenced decision-makers to slow-down the nuclear arms race. Because of the world-wide attention to the extension of the Non-Proliferation Treaty (NPT) in 1995, the appropriate time for such action is now.

The new International Network of Engineers and Scientists Against Proliferation (INESAP) which is part of the worldwide International Network of Engineers and Scientist for Global Responsibility (INES) activities, wants to focus the efforts of scientists and engineers, increasing their “critical mass” of influence toward non-proliferation and disarmament. Activities, which could result from the chain reaction between nodes and links in various countries, are illustrated on the title page of this Information Bulletin.

The Information Bulletin is an important, but at the same time, not the only means of communication inside and outside of INESAP. Issued quarterly, it informs of INESAP activities and related news on non-proliferation, and includes review articles on specific topics, research results, policy-oriented proposals and documents. The Editorial Board includes those actively taking responsibility for the concept of the Information Bulletin and can change over time; realization and distribution is undertaken by IANUS in Darmstadt/Germany.

Besides news, this first issue provides some basic information on INESAP activities, including an agenda suggested by IANUS and documents related to the founding conference in Mülheim. For the following issues, we hope to get enough qualified contributions from your side to make the INESAP Information Bulletin a successful endeavor.

(Jürgen Scheffran)
An Agenda for INESAP

Wolfgang Liebert, Jürgen Scheffran, Martin Kalinowski (IANUS)

1. Non-Proliferation in the 1990s and the Role of Science and Technology

Since the end of the Cold War, the shift from a bipolar to a multipolar world has lead to increasingly complex developments in North-South relationships. Chances and, on the other side, new dangers are inherent in this transformation process. The existing nuclear arsenals, a number of de-facto nuclear weapons states (beyond the five well established) and several want-to-be nuclear weapons states pose major obstacles for achieving a new world order, which will provide secure and sustainable living conditions. The situation offers the unprecedented opportunity to move towards a nuclear-weapons-free world, the intention of the Non-Proliferation Treaty (NPT). Proposals paving the way in this direction should gain political acceptance, and the required political and technical preconditions must be elaborated.

Vertical proliferation - the augmentation of nuclear capabilities and/or further development of new concepts in warhead or missile design - is intricately connected with horizontal proliferation, the spread of know-how and the technology for the construction of nuclear weapons and related delivery systems. Up to now, the process of nuclear disarmament has not been sufficient and comprehensive enough. At present, the growing risks of horizontal proliferation are conspicuous and have to be taken seriously, especially in South Asia, the Middle East and in North Korea.

Challenges for horizontal non-proliferation

The cases of Iraq and North Korea have demonstrated that conventional safeguards procedures are insufficient to cover clandestine activities of member states to the NPT. It is obvious that the safeguards system of the International Atomic Energy Agency (IAEA) is in part weak in view of the problems to be solved.

At this time, 19 countries have access to at least one of the sensitive technological areas which, in principle, enable the production of weapon-usable fissile material. In some countries, sensitive nuclear facilities in combination with larger research reactors do indicate possible nuclear weapon options rather than proving a promising basis for larger civil nuclear programs.

Problems of the nuclear weapon powers

With the end of the Cold War, many experts have lost their jobs in the nuclear and aerospace complexes of the biggest nuclear (weapon) states (the CIS in particular). With appropriate funding, they could work on a variety of tasks related to nuclear disarmament and verification. Otherwise, there is the possibility that these experts could be lured to threshold countries to help in building up a nuclear weapons capability. What to do with the 250 tons of “weapon plutonium” and the more than 180 tons of already separated “reactor plutonium” is still not resolved either technically or politically. The reactor plutonium is usable for weapons purposes or its quality could be improved by new nuclear separation technologies (e.g. Laser Isotope Separation).

Even under the announced reductions of the START treaties to be fulfilled by the year 2003, the U.S. and Russia continue to modernize their strategic arsenals and will have 3500 and 3000 strategic nuclear warheads respectively, maintaining a multiple overkill capacity. The concept of nuclear deterrence obviously has not been abolished. Nuclear armament and research and development (R&D) efforts in smaller, but partly well-established nuclear weapon states, like France, the United Kingdom, China, Israel, India, and Pakistan continue, as well.
Vertical proliferation and preventive arms control

Despite the end of the Cold War, R&D in nuclear weapons has not been finished; even under a Comprehensive Test Ban (CTB) an end of R&D appears to be unreachable in the near future. Moreover, although a mandate to negotiate the CTB now exists, it is not likely that a CTB could be signed and ratified by spring 1995, in time for the NPT extension conference. Measures to end vertical nuclear proliferation must be developed and implemented as early as possible (e.g. a fissile material cut-off). Most of the arms control agreements of the past have been negotiated in a way that new technology could circumvent their provisions. Measures for qualitative arms control are still in their infancy. Beyond a CTB, further measures of preventive arms control, including unparalleled restrictions of R&D, are necessary if scientific-technological innovations for nuclear weapons are to be prevented.

The development, spread, and control of delivery systems

Contrary to the quantitative reductions in the delivery systems of the former superpowers, an increasing number of countries are improving their capabilities to deliver weapons of mass destruction. Due to its inherent ambivalence, the progress in civilian aerospace technology can contribute to military missile programs. A number of developing countries are supplying missiles and related technology. The upcoming debate on missile defense clearly indicates the close connection between horizontal and vertical proliferation of delivery systems.

All of these developments pose challenges for the control of delivery systems. Required are more radical solutions than the Missile Technology Control Regime (MTCR), which can only slow down the spread of missile technology by coordinated national export controls of the major missile suppliers. The transformation of the MTCR into a non-discriminatory arms control and disarmament treaty eliminating missiles and other delivery systems on a global scale should be considered. As with a CTB, a global missile flight test ban would be an essential measure against the development of new missile types.

Ambivalence of science and the responsibility of scientists and engineers

It is often argued that nuclear and missile proliferation is mainly a political problem, and not a technical one. Indeed, political interests are major incentives for proliferation, and political measures are necessary to constrain the dynamics of proliferation. There is no complete technical solution available to the proliferation problem by “safeguarding the atom”. However, the scientific-technological core of the problem should not be ignored. Scientific knowledge and technical know-how, especially the civil-military ambivalence, do influence the range of policy options. Important roots of the problem, as well as relevant solutions, can be identified in the field of science and technology.

Thus, the international community of scientists and engineers can play a key role as a major resource in promoting non-proliferation. The dynamic nature of technological advancements places demands on scientists and engineers to expand networks in order to strengthen political awareness of technology already at the stage of research and development. The International Network of Engineers and Scientists Against Proliferation (INESAP) can make an important contribution to the non-proliferation debate.
2. What is INESAP?
A short description

INESAP is part of the worldwide activities of the International Network of Engineers and Scientists for Global Responsibility (INES). In the beginning phase, the Interdisciplinary Research Group in Science, Technology, and Security (IANUS) at the Technical University of Darmstadt (Germany), as a member organisation of INES, coordinates existing activities and will initiate similar activities in a decentralized network with nodes in different countries.

2.1 Objectives of INESAP

The main objectives of INESAP are to promote nuclear disarmament, to tighten existing arms control and non-proliferation regimes, as well as to implement unconventional approaches to curbing the proliferation of weapons of mass destruction and to controlling the transfer of related technology. Strengthening of non-proliferation activities around the NPT, which is up for extension in 1995, is a major goal.

The following fundamental assumptions underly the work of INESAP:

- **Non-proliferation and global nuclear disarmament:** The prevention of the further spread of weapons of mass destruction is strongly interrelated to greater progress in nuclear disarmament. This was already the basic understanding in negotiating the NPT in the 1960s. Therefore, efforts to bring the nuclear arsenals of all nuclear weapons states under control and rapid progress in nuclear disarmament (including the disarmament of delivery systems) are seen as preconditions to gain better control over the dangerous spread of nuclear weapons.

- **Non-discrimination and nuclear-weapon-free world:** Nuclear disarmament and non-proliferation cannot be obtained in the long term, if the world is divided permanently into a category of countries permitted to have nuclear weapons, a second category of countries in which the use of sensitive technology related to weapons of mass destruction is allowed, and a third category of countries to whom access to these weapons, as well as to the technologies usable for weapons, is denied. The existence of nuclear weapons powers provides other countries an incentive to go nuclear. In order to reduce the discriminatory character of the NPT, a global adherence to and strengthening of this treaty could only be achieved by a careful transformation and embedding of the NPT into long-term concepts aimed convincingly at a nuclear-weapon-free world.

- **International security and sustainable development:** Instead of giving priority to various national security perceptions and policies, there is a growing need for international security concepts which would lead to a stable and sustainable peace for the world in the next century. A common perception of dangers and challenges for the future should lead to new joint efforts in international cooperation. For instance, avoiding dual-use technology, civilian technology should be developed which is resistant to military use and proliferation, achieved best by improving capabilities for a non-nuclear energy supply.

2.2 INESAP Components

Recognizing that science and technology are part of the problem as well as part of the solution of proliferation, the world community of scientists and engineers can play a key role in promoting these major objectives. INESAP uses an integrated, interdisciplinary and international approach to combine research, networking and action (for the various components see the viewgraph on the title page).

1. Research: INESAP will bring scientists and non-proliferation experts together to develop and provide scientifically-based proposals for improving disarmament and non-proliferation regimes. For that purpose, it is not only important to examine the conditions that contribute to the involvement of science and technology in proliferation, but also to use scientific and technical knowledge as a primary resource for non-proliferation. Inputs from the network will be used to identify relevant problem areas, in which scientific understanding is inadequate, and shape new research projects. The first INESAP conference
in 1993 in Mülheim (Germany) was an important step in identifying research topics. A draft research agenda was elaborated based on the interest of participants at the conference, as indicated in a questionnaire. Most promising are the topics: International storage of plutonium and burn-up options; future of the NPT and its extension/transformation; proliferation-resistant energy-scenarios; production cut-off of weapon-usable nuclear materials and its verification; non-discriminatory alternatives to the MTCR; missile flight test bans, the safeguarding of space launchers and international space cooperation. For some of these topics, international study groups and workshops are planned. Books, reports and articles, proceedings, studies and commissioned papers will result. An exchange program should give scholars and scientists, especially from the CIS and developing countries, the opportunity to visit research institutions in other countries.

On specific topics, research needs to be done in more detail. One such project has already been defined at JANUS: Krypton-85 as an indicator for plutonium separation appears to be a good candidate for a coordinated international research effort. The purpose of such a study would be to demonstrate the feasibility of remote sensing for nuclear safeguards surveying clandestine plutonium production activities and for verification of a fissile material production cut-off agreement. Part of the project will be case studies on monitoring and modelling emissions and atmospheric transport of Kr-85 from remote ground based stations.

2. Networking: To focus their expertise and multiply their impact on politics and the public, INESAP intends to mobilize and coordinate the activities of scientists and engineers in numerous countries and different regions of the world, especially in those where activities are lacking and awareness is weak. INESAP will serve as a clearing-house, collecting information on scientific-technical aspects of proliferation and distributing this information to the network participants and the public by different means of communication. INESAP will serve not only as a global forum among critical scientists and engineers, but also as an interface to other networks and databases. The structure of INESAP will be a decentralized and dynamic network, with contact persons in many different countries.

This Information Bulletin will serve as a major forum for communication, both within and outside of the network. In addition, more direct and immediate ways of information exchange between INESAP participants are needed. At the first INESAP conference, several participants suggested forming an international e-mail network. INESAP will support as many participants as possible (especially from developing countries) in connecting to its computer network.

3. Science-policy interface: Based on the research and common perception of the participating scientists and engineers in the network, INESAP will elaborate an agenda of political needs and proposals. By developing policy-related proposals based on scientific argumentation, INESAP will serve as a science-policy interface. This aims at influencing the political decision-making process in governments and international committees in the preparation process for the 1995 NPT extension conference, as well as the entire non-proliferation regime. The science-policy interface needs to be improved in order to facilitate the flow of scientific knowledge and proposals to politicians, the media and the public.

In order to present decision-makers with INESAP positions on a national level, INESAP members must undertake meetings with parliamentarians, influential politicians and representatives of administrations and the press. The establishment of relations with delegates to important international negotiations (e.g. Amendment Conference for the Partial Test Ban Treaty; CTB negotiations at the Conference on Disarmament in Geneva; NPT Extension and Review Conference and related meetings of the Preparatory Committee) is critical. INESAP intends to organize a public event around the third meeting of the NPT Preparation Committee in Geneva (September 12-16, 1994) to raise public awareness of our proposals and to improve contacts with national delegations. INESAP members will be linked to the PrepCom meeting via email (see INESAP-News). Together with other interna-
tional organizations, INESAP will continue to work for an international coalition of non-governmental organizations against proliferation and for nuclear disarmament. INESAP complements other organizations in the field of non-proliferation and will strengthen cooperation with them, in particular: the Nuclear Non-Proliferation Network NNN, the Program Promoting Nuclear Non-Proliferation PPNN, Pugwash, the Monterey Program for Nonproliferation Studies. INESAP will initiate the elaboration of a document related to the NPT extension process.

4. Public interest science: Additionally, scientists and engineers could use their outstanding position to reach out and inform the public and the media in their own countries as part of an integrated political action plan. Together with other related non-governmental organizations, a strategy needs to be developed as to how to advance policy changes through coordinated lobbying and other activities on the part of scientists and engineers worldwide. To raise public awareness in different countries on the impact of science and technology on proliferation, well-informed experts in the non-governmental sector must be available. To broaden the base of non-proliferation experts, non-professionals need to be involved, especially from threshold countries and the developing world. INESAP will motivate and educate scientists and engineers to take part in the public discussion on non-proliferation, e.g. in the framework of universities, adding new scientific and technical expertise.

INESAP wants to collect the best available expertise from different countries according to its objectives and offer its service to the media. INESAP will prepare and disseminate materials to the media, including this Information Bulletin, specific policy proposals, review articles and special press releases on important proliferation events. INESAP will endeavor a special media approach by placing articles in newspapers. A regular press service will be established, to prepare and react to events, such as Preparatory Committee meetings to the NPT extension conference, gatherings of the Conference on Disarmament or the amendment process for the Partial Test Ban Treaty. Press conferences will be organized simultaneously in various countries on common topics or proposals prepared within INESAP.

5. Facing the project: INESAP is a non-profit, non-governmental network organization with participants from all over the world. Participation extends to scientists and engineers interested in promoting non-proliferation and to experts on non-proliferation issues from all disciplines. INESAP is not a formal membership organization, but is closely related to INES whose members are invited to be active in INESAP. The work of INESAP is being done at IANUS and the other INESAP nodes whose activities are coordinated by the Coordinating Committee, which reviews developments, identifies possibilities for action and elaborates strategies in close connection with other active INESAP participants (especially in connection with the national contact persons).

Based on questionnaires distributed at the first INESAP conference, participants able to contribute to INESAP activities, including different research study groups, the Information Bulletin, lobbying, coordination, communication, fundraising and public education were identified. The preparation of a policy statement and an INESAP founding statement is underway. In the starting phase, IANUS will continue to be the main operational base and will serve as the main node for organization and information dissemination, with major support from the Coordinating Committee, the Union of Concerned Scientists, and the Swedish Engineers for Nuclear Disarmament. The network will expand its activities to countries like USA, Sweden, Russia and Pakistan, in which a sufficient number of cooperating scientists and promising resources exist.

The annual meetings should serve to establish and expand our network and improve personal contacts. New participants will be invited as well as experts working in other non-proliferation networks. The agenda of these meetings should cover the whole range of INESAP activities, including research questions, policy activities, networking, etc. Decisions on strategies are to be made at these meetings, final drafts of important policy statements should be discussed and agreed upon.
The workshops are intended to deal with specific research and policy problems in more detail. At regional workshops, mainly scientists and engineers from a specific region will be invited to discuss critical non-proliferation issues of their own region. The scientific workshops deal with specific research questions in order to improve the common understanding on the given topic and to agree on results prepared by the participants. Possible regional workshops could be related to problems in the CIS (with participants including the Baltic states), the India-Pakistan-China triangle, the Middle-East, or Latin America. Possible topics of specific scientific workshops could be oriented along the research agenda (see the first point).

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<th>INESAP Activities</th>
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<td><strong>1. Origin in 1991:</strong> INESAP has been under preparation since the Conference “Challenges - Science and Peace in a Rapidly Changing Environment” in Berlin (Nov. 29 - Dec. 1, 1991), where the International Network of Engineers and Scientists for Global Responsibility (INES) was founded. The Interdisciplinary Research Group in Science, Technology, and Security (IANUS) organized two workshops on nuclear and missile proliferation at this conference.</td>
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<td><strong>2. Activities in 1992:</strong> During 1992, IANUS developed a project proposal for INESAP. During the INES Council meeting in Paris (October 2 - 4), working groups prepared activities in the field of non-proliferation. The Council formally approved that IANUS should run these activities in the launching phase, and IANUS suggested the creation of INESAP. Funds for 1993 were approved by the German Berghof Foundation and the US Ploughshares Fund.</td>
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<td><strong>3. Activities in 1993:</strong> In early 1993, an international Organizing Committee and Program Committee for the first INESAP conference were set-up. In the following months, the conference was prepared by IANUS with support of the members of the international Program Committee (especially the Union of Concerned Scientists and the Swedish Engineers). During this phase, IANUS continued its activities on the national level related to INESAP. Furthermore, contacts were formed with other international organizations in the field of non-proliferation, in particular, to the International Peace Bureau (IPB) during its meeting on non-proliferation on May 17, 1993 at Geneva. In the following months joint activities were undertaken to form a coalition for promoting non-proliferation, including IPB, INES, INESAP, the International Physicians for the Prevention of Nuclear War (IPPNW), the International Association of Lawyers Against Nuclear Arms (IALANA), and the European Test Ban Coalition, all of which met in Cologne (Germany) on August 26, 1993 (see the Coalition founding statement in this Information Bulletin).</td>
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<td>The INESAP Founding Conference, entitled “Against Proliferation - Towards General Disarmament”, took place at the Evangelische Akademie Mülheim/Ruhr (Germany), August 27-31, 1993, with roughly 50 scientists, engineers and experts from 20 countries (see the following pages). Immediately after this conference, the first INESAP workshop followed in Darmstadt on “Non-Proliferation Regimes for Nuclear Weapons and Delivery Systems” (Sept. 1-2, 1993). The founding conference of INESAP, which provided the opportunity to attract greater international attention and disseminate the network’s ideas, was the starting point for further implementation of INESAP and related activities for the following years.</td>
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<td>At the end of 1993 and in early 1994 the German Berghof Foundation and the US MacArthur Foundation approved considerable grants for INESAP. With this and additional funding INESAP will be able to organize numerous activities related to the outlined agenda, including the annual conferences, regional and specific scientific workshops, networking and communication, special research projects, publications, media activities and policy-related activities. All these activities need your support.</td>
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Press Release

Foundation of the International Network of Engineers and Scientists Against Proliferation (INESAP)

More than 50 scientists, engineers and security experts from 20 countries attended the founding meeting of the International Network of Engineers and Scientists Against Proliferation (INESAP), held in Mülheim, Germany from 27-31 August, 1993. The purpose of the meeting was to delineate different possible approaches to addressing the problems of development and spread (vertical and horizontal proliferation) of nuclear weapons and their related delivery systems worldwide, explore which policy options there were agreement on and which INESAP should work to promote, and to identify any unresolved technical issues on which research was needed.

This conference was followed by a special workshop at the Technical University of Darmstadt (September 1-2, 1993), in which the strengths and weaknesses of existing and future international non-proliferation agreements and control measures were compared.

Both events were initiated and organized by the Interdisciplinary Research Group in Science, Technology and Security (IANUS) at the Technical University of Darmstadt in connection with the International Network of Engineers and Scientists for Global Responsibility (INES), which was founded two years ago in Berlin.

Recognizing that science and technology are part of the problem, as well as part of the solution of proliferation, it is a major assumption of INESAP that the international community of scientists and engineers can play a key role as a major partner in promoting non-proliferation. INESAP uses an integrated, interdisciplinary and international approach to combine research, networking and action.

In the future, INESAP will comprise of numerous activities such as an Information Bulletin, meetings, study groups and workshops, special research projects, publications, media activities and policy-related activities. Plans are being made to hold a second INESAP meeting in Sweden in 1994, and to promote communication within the network to help link scientists and engineers working on these issues in different countries.

At both meetings, general consensus was achieved that non-proliferation of nuclear weapons and related delivery systems cannot be separated from progress in nuclear disarmament. After the end of the Cold War, the world should not be permanently divided into three classes: The first category being of countries permitted to have nuclear weapons, the second of countries in which the use of sensitive technology related to weapons of mass destruction is allowed, and the third of those countries for whom the access to these weapons, as well as to the technology required for that purpose, is denied.

This discrimination is most clearly observed in the Nuclear Non-Proliferation Treaty (NPT) and the unilateral export control measures adopted by the most important supplier countries for nuclear and missile technology.

There was support for the following policy measures:

- a comprehensive nuclear test ban (CTB) with adoption of a CTB before the review conference of the NPT in 1995;
- an emerging issue which has important implications concerning future research, is new technologies that could be used to develop and test nuclear weapons without the need for nuclear explosions, thereby undermining the purpose of a CTB;
- a cutoff in production of fissile materials for weapons, including tritium, with full-scope safeguards applied to the nuclear weapon states;
- further significant deep cuts in nuclear weapons arsenals beyond START II, to be joined by China, France, and U.K.;
- a complete conversion of research reactors from using highly enriched uranium (HEU) to the use of low-enriched (less than 20%) urani-
um (LEU) fuel;
• self-restrictions in sensitive industrial applications such as plutonium separation, by reprocessing of spent fuel as well as in sensitive research and development areas such as laser isotope separation (LIS) technology.
• a ban on the flight testing of ballistic missiles and a requirement for pre-notification of space launches;
• a ban on anti-satellite (ASAT) weapons;
• the maintenance of the Anti-Ballistic Missile (ABM) treaty;
• a ban on the transfer of production technology for advanced combat aircraft;
• the destruction of all non-strategic nuclear weapons, including US sea-launched cruise missiles (SLCMs);
• greater transparency in a number of areas: including nuclear warhead dismantlement, space and missile activities.

An effective and non-discriminatory verification process and associated safeguards regime is required to overcome the problem of the close connection between civil and military technology in the nuclear and aerospace sector (dual-use). This would not only include export controls on sensitive technology but also self-restrictions and preventive arms control on military research and development, international scientific cooperation and technology transfer required for sustainable development.

Without substantial progress in the nuclear weapons states giving up their privileges within the next two years, there will not be much chance for a successful extension of the NPT which is due for ratification in 1995. The goal should be to achieve a well-organized transition from the current discriminatory situation, in which a small number of states are allowed to possess nuclear weapons, towards a treaty which manifests a nuclear-weapons-free world, which we find is the only situation acceptable for the long-term future. Working towards this goal is seen as a major challenge for the time ahead.

Photo: Participants of the First INESAP-Conference in Mülheim
1st row: (from left to right): Dhirendra Sharma (India), Wolfgang Liebert (Germany), Human Ghassib (Jordan), Hartwig Spitzer (Germany), William Epstein (USA), Virginia Gamba (USA), Reuven Pedatzu (Israel), Marco Negrete (Mexico), Hans-Jürgen Fischbeck (Germany), Diletta Calzetti (Italy), Harold Feiveson (USA), Jürgen Scheffran (Germany) 2nd row: Mike Casper (USA), Luis Masperi (Argentina), Francois Clapier (France), George Lewis (USA), Lora Lumpe (USA), Annette Schaper (Germany), Lisbeth Gronlund (USA), Jinzaburo Takagi (Japan), Vladimir Shmelev (Russia), Gert Harigel (Switzerland), Dingli Shen (China), Anatoli Diakov (Russia), Armando Sternieri (Italy) 3rd row: Roger Jardine (South Africa), Tariq Raul (Canada), Colin Archer (Switzerland), Götz Neuneck (Germany), John Pike (USA), Eric Arnett (USA), Oleg Bukharin (Russia), David Wright (USA), Swen Hellmann (Sweden), Fernando de Souza Barros (Brazil), Mario Vadacchino (Italy), Ivo Sarges (Germany), Oliver Lobisch (Germany) Last row: David Albright (USA), Stefan Björnson (Sweden), Bo Aler (Sweden), Berkutbai Ayaganov (Kazakhstan), Thomas Shea (Austria), Alden Meyer (USA), Kumao Kaneko (USA), Otfried Nassauer (Germany), Jan van de Putte (Belgium), Johan Swahn (Sweden), Martin Kalinowski (Germany), Eugene Sharov (Ukraine), Liu Yong (China), Sandra Kelly (Germany)
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INESEAP Proceedings – Overview

Against Proliferation – Towards General Disarmament
First Conference of the International Network of Engineers and Scientists Against Proliferation (INESAP)

Mülheim, Germany
27 – 31 August 1993

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Working together for a Nuclear Weapon-free World

An International Coalition for Nuclear Non-Proliferation and Disarmament

Founding Declaration
1 December 1993

This statement has been drawn up by representatives of 4 international peace organizations, in order to provide a basis for joint work in the period leading to the important events due to take place in 1995, notably:

- the Non-Proliferation Treaty (NPT) Extension Conference;
- the commemoration of the founding of the UN;
- the 50th anniversary of the bombing of Hiroshima and Nagasaki.

The initiative arose from a seminar convened by the International Peace Bureau (IPB) in Geneva, May 1993.

We are now circulating this Founding Declaration very widely to disarmament/anti-nuclear organisations in many countries, together with a request for supporting signatures. We hope it will help to focus the discussions already taking place within peace and environment movements and will encourage organisations to get involved in the Coalition. The text has been worked on by many people but will never entirely satisfy everyone. It is not the last word on the subject but rather a rallying-point for international action. If you have alternative perspectives to offer, please develop them into a position paper and send it to the address below (a short description of the Coalition is given in the INESAP-News).

Introduction

The threat of nuclear war continues to menace humanity. Ever since the UN General Assembly first met in January 1946 the vast majority of the world’s states have been committed to the elimination of nuclear weapons. But this commitment, and much else on the agenda drawn up by the 1978 First Special Session on Disarmament, remains unfulfilled. As citizens and non-government organisations working to rid the world of this scourge, we recognise the need to intensify our efforts at all levels and to work together across boundaries to realise our vision of a planet free of nuclear weapons.

At the end of the Cold War, the world seemed to have been released from the threat of ever-escalating global terror known as “deterrence”. Today, however, we face enormous perils from nuclear weapons proliferation, vertical as well as horizontal. New nuclear arms races are emerging, both between de facto nuclear weapons states (such as India, Israel and Pakistan) or threshold states (such as Iraq and North Korea); and between these countries and the 5 declared nuclear weapons states, who are determined to maintain their nuclear supremacy. Meanwhile the collapse of the former USSR has given rise to intense concerns about safety and proliferation of nuclear materials and expertise in the successor states.

The challenge now is not only to prevent further proliferation but then also to eliminate all nuclear arsenals and options - and there are more states involved than hitherto. Furthermore, this task must be undertaken in an international climate which is far more unstable, and where the risks of escalation from conventional to mass destruction weaponry are greater than before. We have a “window of opportunity” but time is short. Strategists are devising new doctrines and justifications for nuclear devices, based on new threat perceptions. The number of nuclear-armed governments may gradually increase, and the instruments of international control are weak. The coming two years are crucial: they present an unparalleled opportunity to promote an effective non-proliferation regime and to prepare the ground for the abolition of the global nuclear menace. We appeal to citizens in all countries to act forcefully to assert their rights to protection from nuclear contamination, and to safeguard generations to come and the planet itself.

The 1995 Extension Conference of the Nuclear Non-Proliferation Treaty (NPT) could prove to be the turning-point of the nuclear age. It has to tackle both horizontal proliferation - the further geographical spread of nuclear weapons - and vertical proliferation - the development and increasing sophistication of existing nuclear arsenals, while reconciling widely differing interpretations of the Treaty itself.

The NPT is essentially a discriminatory document. On the one hand, it defines five countries as “nuclear weapon states”, failing to condemn their possession and development of nuclear weapons and exempting them from the obligation to subject their nuclear facilities and materials to international inspection. On the other hand, it imposes strict controls on the “non-nuclear weapons states", with the object of preventing diversion of civil nuclear technologies and materials to military use. By assigning different rights and obligations to “haves” than to “have nots”, the NPT gives credence to the notion that the possession and development of nuclear weapons by a select few countries is an accept-
able resolution of a global security problem.

The NPT came into force in 1970. Since then only limited progress has been made towards the disarmament goals embodied in Article VI and the Preamble: an early end to testing and to the nuclear arms race, drastic cuts in nuclear arsenals, and ultimately General and Complete Disarmament. One important contradiction inherent in the NPT is that there are no provisions to enforce and verify measures in this direction. It has not even been acceptable to officially denounce the enormous escalation of the nuclear weapon states’ arsenals as a violation of the Treaty.

Another basic contradiction is that the NPT promotes nuclear energy while attempting to control military uses which are intimately related to civil nuclear technologies and materials. The future of the NPT depends on whether both contradictions can be tackled in an effective and non-discriminatory fashion.

The 1995 NPT Extension Conference provides an opportunity to challenge the widespread but unbalanced interpretation of the NPT in which only the horizontal aspect of proliferation is emphasised. Article VI and the Preamble should be used as leverage for enforcing nuclear disarmament. However the threat of terminating the NPT ought not to be overplayed since some elements of it have been very important in curbing the spread of nuclear weapons. The Conference must be one of a series of decisive steps to move beyond non-proliferation to a nuclear weapon-free world.

The signatories urge the adoption of the following programme of measures:

A. Towards the Elimination of Nuclear Weapons

While universal agreement to eliminate all nuclear arsenals may be unlikely in the immediate future, there are a number of intermediate steps for which support among both governments and NGOs is urgently needed:


A CTBT, as provided for in the preamble of the Partial Test Ban Treaty and recalled in the preamble of the NPT, is long overdue. The current moratoria by the US, French and Russian governments have opened the way for successful multilateral negotiations, and we welcome the decision to undertake negotiations in the Conference on Disarmament. There may also be an important role for the PTBT Amendment Conference. But public pressure is vital to ensure an agreement is in place before the 1995 NPT Extension Conference. While effective verification is crucial, the final text should also open the way for further accords covering compensation for victims, restoration of indigenous peoples’ land rights and provisions for clean-up and permanent closure/economic conversion of test sites. Efforts to circumvent the CTBT using new technology should also be banned.

2. Beyond START 1 and 2: deeper cuts.

It is vital that the dispute with Ukraine over its nuclear status and the dismantling of its arsenal be brought to a rapid conclusion. This will enable the substantial cuts agreed by the US and Russia under START 1 and 2 to be completed, and further major reductions (START 3) to be negotiated in a multilateral forum including Britain, China and France. In particular we urge further lowering of the ceilings on strategic weapons holdings and the rapid elimination of all multiple-warhead land- and submarine-based missiles, as well as all remaining (air-launched) tactical nuclear weapons. One important intermediate measure is a rapid process of deactivation, under international inspection, in both US and former USSR: removal of warheads from missiles, missiles from silos, and nuclear devices from bombers. The very substantial investment required for accelerated programmes of dismantlement, and for safeguarding the resulting fissile material, should be taken from existing military budgets. Dismantlement needs to be accompanied by a system of verifiable registration of all nuclear weapons.


All states should sign and ratify existing NFZ Treaties, and the UN should urge negotiations on the establishment of such zones in other regions, especially those in areas containing threshold nuclear states and nuclear-capable states.

4. The illegality of nuclear weapons.

Support must be intensified for the World Court Project, which aims to secure an advisory opinion from the International Court of Justice on the legal status of the use of nuclear weapons in armed conflict. In May 1993 the World Health Organization formally agreed to request the Court to deliver such an opinion, and states now have until 10 June 1994 to make written submissions. In Nov 1993 a supporting resolution was tabled in the General Assembly’s Disarmament and International Security (First) Committee, but was withdrawn under pressure from Western nuclear states. More than anything this illustrates the importance of helping those Non-Aligned and non-nuclear weapons states to stand firm in the face of economic and political harassment.


“Minimal deterrence” must not be allowed to become the accepted new doctrine. Negotiations should be opened at an early date on a Convention to prohibit the development, production, testing, stockpiling, deployment, threat and use of all nuclear weapons, for all time - along the lines of the Chemical and Biological Weapons Conventions. The survivors of Hiroshima and Nagasaki have been calling for this for over 40 years. The draft texts drawn up by NGOs should be further developed and widely publicised. Detailed verification and confidence-building provisions will be needed to ensure that countries with the technological capacity do not engage in covert nuclear weapons programmes.

B. The Preservation of the Nuclear Non-Proliferation Treaty

1. Extension of the NPT beyond 1995 – but not unconditionally

The text of the Treaty requires that it be extended beyond 1995 – the only question is for how long and under what conditions. Despite the discrimination built into it, and the weaknesses of the safeguards regime, a very short extension would prove damaging to global non-proliferation efforts. But the long-term extension of, and universal adherence to, the NPT depends on the willingness of the nuclear weapons states to make binding commitments to more substantial disarmament measures and to put an unequivocal end to nuclear weapons innovation.

2. Obligations of the nuclear weapons states

Up to now the nuclear weapons states have not fulfilled their obligations under Article VI. Apart from the inherent dangers of vertical proliferation, further research and development undermines the credibility of horizontal non-proliferation. Measures such as No-First-Use commitments and both positive and negative security assurances are long overdue, so long as they are understood not to legitimate other uses. Particular attention now needs to be focussed on deep cuts (see A2 above), on nuclear miniaturisation and missile defence programmes, and on new programmes such as the British Trident and
French M5/M45 systems. Above all, current efforts to agree rapidly a Comprehensive Test Ban Treaty (CTBT) must be energetically pursued.

3. Universal participation
Ways have to be found to universalise negotiations on participation in the international non-proliferation regime, in order to bring as many states as possible into the system. Such pressure may be most effective if exerted by the members of the Non-Aligned Movement, rather than by the nuclear weapons states themselves.

C. Strengthening the overall Non-Proliferation Regime
Rather than seek to amend the Treaty, we urge adoption of the following additional proposals to improve the wider system of control of nuclear weapons proliferation. Efforts to ensure compliance with non-proliferation measures agreed by the international community should be carried out by non-military means.

1. Reform of the IAEA
To promote:
- greater transparency for member states and the public
- strict impartiality
- a large increase in financial resources
- correction of the “safeguards imbalance”, by which large portions of the budget are devoted to only a few countries
- an end to nuclear energy promotion and replacement with programmes of safety, safeguards, decommissioning, waste disposal and verification of nuclear disarmament agreements
- establishment of a new, well-funded UN agency to promote renewable energy sources

2. Increasing the authority of the IAEA
To permit:
- short notice and unannounced inspections at any location in any country
- “special” and “challenge” inspections at the request of individual states
- the right to information, inspection and approval of new nuclear plants
- the use of other verification methods - eg satellite monitoring - to supplement safeguards
- measures to minimise circumvention, including citizen verification and active support for “whistleblowers”

3. Control of plutonium and other weapons-grade material
To implement:
- an immediate total cut-off of all production and use of weapons-grade material, including plutonium, highly enriched uranium and tritium
- the application of full-scope safeguards to the nuclear weapons states and to all international nuclear transfers including fissile material from dismantled warheads
- the phasing-out of nuclear reprocessing
- strict limitations on Laser Isotope Separation and other nuclear weapons-related R & D
- the standardisation of export controls on dual-use items, provided that their continuation is dependent on the same restrictions being applied to the suppliers themselves

4. Control mechanisms for delivery systems
To promote:
- the dismantlement of all strategic nuclear delivery systems
- a global ban on ballistic missile flight tests and prior notification of all rocket launches
- limitations on military use of Satellite Launch Vehicle (SLV) technology
- the placing of the Missile Technology Control Regime under UN auspices and the tightening of restrictions on missile production
- steps towards limitations on nuclear-capable attack aircraft and cruise missiles
- the enhancement of international cooperation on civilian space projects

D. An Alternative System of Security
Halting proliferation and moving towards the elimination of nuclear weapons cannot be achieved in isolation. More than ever, the world needs a global system of comprehensive common security, based on cooperation and nonviolent means. This will require a wide-ranging transformation of security concepts, the commitment of far greater financial and human resources, and a series of major institutional and policy changes. The latter should include preventive diplomacy, peaceful settlement of disputes, minimum-force peace-keeping, and much reduced conventional arms production and transfers. A democratised and reformed UN could play a crucial role in bringing such a system into being. At the same time more sustained efforts must be made by citizens of all countries to help bring together nations and peoples at risk of, or engaged in, military confrontation. If reconciliation and mutual tolerance are not active political and social priorities, few disarmament proposals hold any chance of success.

E. Role of NGOs and Citizen Groups
Many people around the world now recognise that nuclearism is a dead end. We now know that major arms reductions - including unilateral ones - can become a reality. Yet there remain tremendous vested interests in elite circles opposed to disarmament: economic, political, military, cultural. This fact requires us to step up all activities to promote non-proliferation, a nuclear weapon-free world, and ultimately the achievement of General and Complete Disarmament. It is a long-term process, but the public must be alerted now: both to the danger the world faces and to the opportunity to bring about change through concerted action. Such action requires effective coordination at all levels, from local to international.

NGOs are usually less constrained than governments and are free to advocate more far-reaching policies. Nowhere is this more true than in the field of nuclear disarmament. Governments must be pressured to accept NGO participation in the creation and implementation of non-proliferation and disarmament policies.

The signatories to this declaration undertake to engage in programmes of public mobilization in order to promote the ideas contained in the above programme and to influence decision-makers - in particular by lobbying the decision-makers and representatives of the nuclear weapons states and the nuclear threshold states to abide by their commitments and obligations under international law.

Founding signatories:
- International Association of Lawyers Against Nuclear Arms (IALANA)
- International Network of Engineers and Scientists for Global Responsibility (INES) incorporating INESAP (project on proliferation)
- International Peace Bureau (IPB)
- International Physicians for the Prevention of Nuclear War (IPPNW)

Suggestions for distribution are very welcome. Please send to:
International Peace Bureau, 41 rue de Zurich, 1201 Geneva, Switzerland;
Tel: +41-22-731-6429, fax: 738-9419
email: ipb@gn.apc.org
German national meeting on non-proliferation

Invited by the German Scientists’ Peace Initiative (Naturwissenschaftler-Initiative Verantwortung für den Frieden) and the IPPNW, representatives of organizations in the field of peace and nuclear policy came together in Frankfurt on March 3, 1994 for a “Working Meeting on Non-Proliferation and Disarmament Policy”. Participants included representatives from peace research institutes and German supporters of the International Coalition for Nuclear Non-Proliferation and Disarmament whose Founding Statement (see page 13-15 of this Information Bulletin) had been translated into German. At the working meeting, John Holden (Berkeley University), who is Chairman of the Pugwash Executive Committee, presented the recently finished study “Management and Disposition of Excess Weapons Plutonium”, which has been worked out under his chairmanship for the US National Academy of Science. As a result of this study proposals were made for the short-term disposal of disarmed ‘weapon plutonium’. At the same time, long-term problems of “reactor plutonium” which can be used in nuclear weapons were emphasized.

Wolfgang Liebert (IANUS) presented policy measures for the German government concerning the NPT extension, aiming for a transformation of the NPT through embedding it into a concept of a world free of nuclear weapons. These proposals should give rise to a position paper of the Scientists’ Initiative which is to be distributed to the public. Further cooperation has been agreed upon.

Talks with German politicians on nuclear proliferation

At the end of February/early March, the members of the Scientists’ Peace Initiative, Martin Kalinowski, Wolfgang Liebert and Hartwig Spitzer, held several talks with representatives of the German Foreign Ministry and the Defense Ministry. They were able to inform them on the activities of INES and INESAP and explain their positions on the relationship of nuclear weapons proliferation and development with disarmament obligations and self restrictions of the nuclear weapons states and other industrialized countries. Possible solutions for current problems were discussed including the question for an effective outcome of negotiations on a Comprehensive Test Ban.

Activities against the German HEU reactor

For several years the University of Munich has been planning the substitution of their old research reactor FRM I by a new and larger reactor. The planned power output is 20 MW(th). The core is proposed as a cylindrical compact core made out of 8 kg highly enriched uranium (93%). This reactor would have the largest high flux density in the world. It is argued that this is necessary for the research projects planned. For technical reasons the core would have to be completely redesigned, if it should work with LEU and the achievable flux density would be lower.

We think that the scientific need for such a reactor is questionable and that it would be a political mistake.

We consider this proposed research reactor an unfortunate setback in the international endeavours for non-proliferation. Since the recommendations made by INFCE some 15 years ago, there has been an international campaign to convert HEU reactors to using LEU.

Until December 29, 1993, everybody could hand in objections against the planned reactor. Among other groups INESAP has objected against FRM II (see the following). After a preliminary evaluation of all objections there will be a public hearing in early May 1994. Everybody who handed in an objection will be allowed to give an oral testimony and provide further arguments. Experts can be called for by objectors to provide scientific based arguments. The ‘German branch’ of INESAP is organizing efforts in this direction and will present a testimony regarding the proliferation risks.

Translation of the objection against the proposed research reactor FRM II at Munich (Germany) handed in by INESAP

To the Bayrische Staatsministerium für Landesentwicklung und Umweltfragen Rosenkavalierplatz 2 81925 München (Bavarian Ministry of Planning and Environment, Germany)

Conc: Objection FRM II

In the name of the International Network of Scientists and Engineers Against Proliferation (INESAP) we raise the following objection against the planned project of the Technical University Munich and Siemens AG to construct and operate a “high-flux neutron source Munich FRM II”.

Because of the planned use of highly enriched uranium (HEU), the proposed research reactor FRM II jeopardizes the success of pressing endeavours for the non-proliferation of nuclear weapons. An possible endangering to the international non-proliferation regime cannot be disregarded in the long run. Hence, the construction and operation of FRM II to the planned design specifications, would contribute to threats to international security and would increase the probability of the possible use of nuclear weapons in the future. This threatens the lives and health of all the people in the world.

Reasoning: The use of about 8 kg HEU, enriched to 93% in form of uranium silicate, is planned. At this level of enrichment uranium is directly usable for nuclear weapons. According to the significant quantity (25 kg HEU), as defined by the International Atomic Energy Agency (IAEA), the foreseen amounts of fuel for five operational cycles per year (40 kg) would suffice for almost two nuclear weapons. 40 kg HEU at this level of enrichment could also be sufficient for four or more nuclear explosives depending on weapon design and achieved detonation technology.

The planned utilization of weapons usable material gives rise to two dangers concerning the worldwide proliferation of nuclear weapons:

1. Direct danger: The direct danger is that HEU intended for use in the FRM II could be diverted for the purpose of making nuclear weapons. Various scenarios can be imagined for this (assault on transport, removal from the reactor place, etc.)

2. Indirect danger: Before and during the last Gulf War, Iraq, as a party to the Non Proliferation Treaty (NPT), was under suspicion of conducting a clandestine nuclear weapons program. In this case, nuclear weapons usable HEU destined for use in the operation of a research reactor, played a crucial role.

Part of the indirect danger lies in the German example of continuing to use HEU in research reactors (in this case even in a newly designed reactor) acts as a bad example to other countries, which could conduct research programs using HEU as part of disguised nuclear weapons plans.

International efforts towards the reduction and long-term elimination of HEU as a reactor fuel would be undermined. Since 1978 the U.S. government has been running corresponding program with the
Electronic mail networking during the NPT review and extension process

INESAP is going to link you directly to the third NPT PrepCom meeting at Geneva from 12 to 16 of September. This will be the occasion to initiate our electronic mail network. Martin Kalinowski, at IANUS, will be responsible for the reporting from Geneva. In the meantime, Johan Swahn, at the Chalmers University of Technology, is setting up a non-proliferation INESAP e-mail discussion group/list on the Internet which will be used for the distribution of information and discussion in September as well as during the period up to the conference.

The discussion list will work using e-mail and therefore anyone with an e-mail address can join in. In addition, people on other networks such as APC/GreenNet/Nordnet, Compuserve etc. can take part. However, if you are on other networks than the Internet, please check if there are charges for sending/receiving e-mail to/from Internet. A well-functioning e-mail discussion group can generate up to as much as 10 to 20 messages a day, but to begin with there will be less communications. If communications increase, it would then be possible to collect messages in “digests” that are sent daily, but we will not be doing so initially.

To begin with, an invitation to join will be sent out electronically to the participants at the Mulheim conference that we have e-mail addresses for (25 individuals in 13 countries). If you were a Mulheim participant and have not received such a message by the time you receive this Information Bulletin, we do not have a functioning e-mail address for you. On receiving a positive response we will put you on the mailing list. If we don’t have your e-mail number on our list yet, or if you don’t have access to internet yet, please consider arranging such a link and let us know your e-mail address and your interest in the discussion group.

Anybody who feels associated to INESAP can join the discussion group by sending a message to “inesap-request@faky.chalmers.se”. You will then be sent an invitation to join the discussion group/list.

Another way of getting an invitation to join is to complete the ‘INESAP Membership’ form, fill in your e-mail number and tick the circle ‘Yes, I want to be linked to the NPT review and extension process via email’.

Our plan is to send daily reports from the third NPT PrepCom meeting and you will have the opportunity to add your comments. We can quickly work out common statements which can then be handed out to the delegates. We are planning to activate the discussion group well in advance to the PrepCom and would continue running it, if it were a success.

In addition to this internal discussion group, IANUS has joined GreenNet and will establish a conference for INESAP within the APC. The main purpose of this conference will be to reach a broader range of the public and to provide them with information on and out of INESAP. It may be possible for us to mirror the Internet discussion on the APC, but we are not going to run our discussion on the APC because not everybody has access to it, while most people can join an Internet discussion on e-mail.

Contacts:
Martin Kalinowski, Johan Swahn (for addresses see list of national contact persons)

INESAP at the 3rd NPT PrepComm Meeting

The third session of the preparatory committee for the 1995 Review and Extension Conference for the Non-Proliferation Treaty will take place from 12 to 16 September in Geneva. One result of the second PrepCom meeting is that representatives of NGOs are permitted to attend the meetings of the Committee except those which are designated closed. They can receive documents of the Committee, distribute their own information material, and hold a briefing for those interested. JANUS sent a letter to the NGO Liaison Officer, Philippe Laguerre, asking for INESAP to be permitted to the 3rd PrepCom meeting on the same terms as NGOs. In any case we will be in Geneva and report via email directly and daily from the negotiations (see the note on electronic mail networking).

Latest News: The US government has expressed their concern against the HEU reactor near Munich to the German government. From the US perspective the use of HEU would present a risk for international non-proliferation efforts. The German Ministry of Research rejected these concerns because Germany had signed the NPT (see “Frankfurter Allgemeine Zeitung”, April 13, 1994).
Initiatives and Projects in Non-Proliferation and Disarmament

The following short descriptions give basic information on selected organizations and groups working active in the field of non-proliferation, not necessarily related to INESAP and not restricted to scientists and engineers. In addition to self-descriptions, a major reference is the “Inventory of International Nonproliferation Organizations and Regimes”, compiled by Roland M. Timerbaev, Lisa Moskowitz, Jacques Vos of the Program for Nonproliferation Studies, Monterey Institute of International Studies, Working Paper No. 2, June 1993. More initiatives and projects will follow in the coming issues of the Information Bulletin. All projects are invited to provide more information on their activities for the Information Bulletin.

Cooperative Policies for Preventing and Controlling the Spread of Missiles and Nuclear Weapons – Policies and Perspectives in Southern Asia

The Project will investigate the conditions and possibilities for introducing new, cooperative policies in the efforts for stopping the proliferation of weapons of mass destruction and for controlling their effects. In order to arrive at a state of analysis, which can become relevant for political planning, the project will concentrate on relations with and among countries of one region, namely South Asia, in particular, India and Pakistan. Based at the Institute for Peace Research and Security Policy at the University of Hamburg (IFSH) in Germany, the project will cooperate with INESAP and the

• Center for Science and International Security at the University of Hamburg (CENSIS),
• Jasjit Singh, Institute for Defence Studies and Analyses (IDSA), New Delhi, India,
• Shireen Mazari, Islamabad, National Defense College, Pakistan.

The project work is divided into five sections:

1. Current and future development of missile defense systems and of missiles from developing countries.
2. Cooperative security policy in the field of missiles and of the development of nuclear technology - proposals from Pakistan and India.
3. Prospects for a disarmament treaty eliminating ballistic missiles and nuclear weapons from southern Asia.
4. Prospects for civilian technological and industrial cooperation in fields of advanced technology between industrialized countries and South Asian countries and among South Asian countries, in particular India, Pakistan, and eventually China.

A seminar, held at Bonn, Germany on December 1-3, 1994 will serve to discuss the work of the different sections and present it to experts from government institutions and embassies. Cont.: Otfried Ischebeck, Götz Neuneck, IFSH, Falkenstein 1, D-22587 Hamburg, T: (+49)-40-869054, F: (+49)-40-8663615 e-mail: 100330.3571@compuserve.com.

Carleton College Non-Proliferation Working Group

Stimulated by the INESAP conference in Germany, Mike Casper who is a member of the INESAP Coordinating Committee, has initiated a Non-Proliferation Working Group at the Carleton College in Northfield, Minnesota (USA). This group started working out a step-by-step transition to a non-discriminatory NPT regime and what actions by the non-nuclear weapons states and the United States until the 1995 NPT Extension Conference would be required to set a stage for such a transition. A three-stage process is described in detail in a paper “Toward a Non-Discriminatory NPT Regime: A Vision and a Strategy”.

Contact: Prof. Mike Casper (for address see list of national contact persons)

Monterey Program for Nonproliferation Studies (PNS)

PNS was initiated in January 1993, at the Monterey Institute of International Studies and is comprised of four research projects dealing with nonproliferation: Emerging Nuclear Suppliers Project (ENSP), CIS Nonproliferation Project (CISNP), International Missile Proliferation Project (IMPP), and International Organizations and Nonproliferation Project (IONP). The international Core Group consist of experts from many western and CIS countries. The Program provides systematic data collection and automated retrieval as a research tool for scholars and policymakers, publishes timely analyses to contribute to enlightened national and international policies, offers education and training, and provides public outreach. Director: William C. Potter, Monterey Instit. of Int'l Studies, 425 Van Buren Street, Monterey, CA 93940, USA. T: (+1) 408-647-4154, F: (+1) 408-647-3519, E-Mail: mipsres@pandora.sf.ca.us. Publications: Eye on Supply, Missile Monitor, Occasional Papers, Working Papers, Monograph Series.

Northeast Asia Peace and Security Network (NAPSN)

The Northeast Asia Peace and Security Network is a transnational, nongovernmental network launched in November 1993 of non proliferation specialists, regional security experts, and non-governmental organizations from Northeast Asia and North America. The objective of the Network is to explore ideas and promote dialogue on nuclear non-proliferation in the region. The Network is advised by an international group of eminent persons from the United States; Europe; Japan; China; South Korea; and North Korea. It has commissioned about twenty papers from scholars around the world. The first five papers deal with critical issues related to the next round of high level talks between the United States and the DPRK, with a particular focus on the possibility of transferring a light water reactor to North Korea, and on sanctions.

Other essays cover North Korean decision making and the nuclear issue; possible military escalation of the North Korean impasse; regional nuclear forces of the great powers; and options for regional non-nuclear institutions. The Network is funded by the Rockefeller Foundation. Readers interested in obtaining Network products or in participating in the Network should contact: Paula Fonmy at Nautilus, 746 Ensenada Ave, Berkeley, CA 94707, USA. T: (510) 526-9296, F: (510) 526-9297, e-mail: npr@igc.apc.org

International Peace Bureau

IPB is the oldest and broadest of the peace internationals, with 140 member organizations in 40 countries. Founded 1892, the IPB won the Nobel Prize in 1910. IPB has been involved in a number of relevant international networks over the last few years, notably those working on nuclear testing, arms trade, the World Court Project, the UN NGO Committees on Disarmament, etc. In addition to publishing and experience in e-mail conferencing and networking, IPB has organized annual conferences and specialist seminars for the international peace movement. Recent topics were the international launch of the World Court Project (1992) and nuclear non-proliferation (1993), which led to the foundation of the International Coalition for Nuclear Non-Proliferation and Disarmament. Secretary General: Colin Archer, IPB, 41 rue de Zurich, 1201 Geneva, Switzerland. T: (+41)-22-731-6429, F: 738-9419,
International Coalition for Nuclear Non-Proliferation and Disarmament

The purpose of the Coalition is to provide a framework/platform for both international and national level movements to undertake joint projects, to promote information-sharing and to shape the division of labour. A Founding Declaration (see this issue) has been put together by representatives of 5 international peace organizations: IPB (general peace movement), INES (scientists & engineers), IPPNW (physicians), ALANA (lawyers), ETBC (European Test Ban Coalition).

The role of the Coalition will include the following:

1. International coordination and liaison between peace movements and key individuals.
2. Building a framework for international public education and action.
3. Monitoring the policies and positions of UN member states, especially on the NPT and its extension, and facilitating lobbying.
4. Promotion of particular initiatives, such as the World Court Project, the Comprehensive Test Ban Treaty, the cut-off of fissile material, and the Treaty on Elimination of Nuclear-armed ballistic missiles.

The strength of the coalition’s activity will depend on how much the members put into it. A number of specific activities have been proposed, including circulation of the Founding Declaration; creation of national coalitions and alliances/networks; media work; support of various nuclear-related events to be held in 1995, notably the anniversary of the atomic bombings; and the Treaty on Elimination of Nuclear-armed ballistic missiles.

Workshop on Possible Interlinked South Asian and Worldwide Nuclear Arms Control and Disarmament Initiatives

On February 24-26, 1994, a conference convened in Shanghai that included participants drawn from China, India, Pakistan and the United States of America. Sessions held included these: Security Perception of and Nuclear Arms Development in South Asia; Stopping Production of Uncontrolled Fissile Materials; A Global CTBT; Further Reductions in the Nuclear Arsenals of the acknowledged Nuclear Weapons States; Controlling the Spread of Ballistic Missiles: Regional and Global Consideration; Regional Cooperation and Confidence Building. A large number of proposals were tabled by the participants.

1. BILATERAL TEST BAN - India and Pakistan should sign a bilateral treaty banning nuclear test explosions (CTBT) to be in effect until the universal CTBT is effective, by 1996 at the latest.
2. NO FIRST USE - India and Pakistan should agree not to use a nuclear weapon, so long as the other does not. In addition, the two countries adopt suitable verification and confidence building measures.
3. PEACE THROUGH NEGOTIATION - Major outstanding bilateral disputes among states with participants at the Shanghai workshop should be resolved through cooperative negotiations to establish durable peace and stability.
4. TRANSFER WEAPON MATERIAL TO IAEA CONTROL - Specifically identify the numbers and types of nuclear weapons and materials that are made redundant by arms reduction agreements, and transfer them to safeguarded storage under IAEA verification, extending through their use in the nuclear energy sector or their ultimate disposal.
5. NO FIRST USE TREATY - Conclude a No First Use Treaty including all the Nuclear Weapon States as well as Nuclear Capable States.
6. CoCONFERENCE FOR THE GLOBAL ELIMINATION OF BALLISTIC MISSILES - Russia and the US convene a conference of states to explore the global elimination of nuclear-armed ballistic missiles, as a step toward the elimination of the nuclear threat.
7. DATE CERTAIN FOR TOTAL ELIMINATION OF NUCLEAR WEAPONS - Agree to the total elimination of all nuclear weapons by a specified date.
8. IMPLEMENT BW AND CW CONVENTIONS - For biological and chemical weapons - ensure that the relevant conventions with adequate means of verification enter into force as soon as possible.

Counterproliferation, Missile Defense and North Korea

Vertical versus Horizontal Proliferation

In a Washington speech on December 7, 1993, former US Secretary of Defense Les Aspin outlined how the new Counterproliferation Initiative (DCI) would add “the task of protection to the task of prevention”. While prevention would focus on traditional means of non-proliferation policy (dissuasion, denial, arms control, international pressure), protection would include those military counterproliferation measures for which the Pentagon feels responsible: defusing, deterrence, offense and defense. Among the most favorite items on the military shopping list would be improved non-nuclear penetrating munitions to deal with underground installations, better ways to hunt mobile missiles, and missile defense. This new task seems to offer a brilliant future for tactical missile defense programs in both East and West (now called “North”) against emerging threats from the “South”. Although the Gulf War has demonstrated the failure rather than the success of the Patriot, its planned deployment against North Korea can be seen as one element of counterproliferation. It would not be surprising if North Korea would multiply its efforts to get the bomb before other elements of the DCI would be employed as well.

Clinton Administration Proposes Transferring F-16 Aircraft in Exchange for Cap on Pakistani Nuclear Program

Conventional versus Nuclear Proliferation

In late March the US Administration made public a plan to transfer 38 F-16 fighter/bombers to Pakistan, in exchange for a pledge from Pakistan to verifiably cap production of nuclear weapons materials. (Pakistan has already paid for the aircraft, but US law invoked in 1990 prevents transfer of the planes. The “Pressler Amendment” blocks arms sales and military aid to Pakistan unless the President is able to certify that Pakistan does not possess a nuclear weapon.)

As part of the plan, Pakistan would have to halt all activities related to Plutonium, cease production of HEU and place all LEU under IAEA safeguards. In addition, Pakistan must support a multilateral CTB and unilaterally pledge to conduct no nuclear tests until a CTB comes into force; adopt export controls to cover nuclear materials and related technologies; and agree not to deploy ballistic missiles. Parallel, but undisclosed, inducements were offered to India to obtain similar promises.

The governments of India and Pakistan, and vocal elements of the US Congress have all objected to the plan.
Selected Publications:


Dates:

May 5-1 July, 1994: UN Conference of Disarmament (CD), Geneva
May 28-29, 1994, Intl’l Coalition for Non-Proliferation and Disarmament, Steering Com. Meeting, Geneva
May 30-31, 1994, NGO Committee Seminar on CD Work
June 10, 1994: Event at the World Court & Intl’l Steering Com. Meeting, the Hague
June 6-7, 7, 1994, Pugwash Conference on Science & World Affairs, Crete
June 17-19, 1994: Meeting of the INESAP Council in Dortmund, Germany
June 24-27, 1994: Global Forum – Peace Pavilion, Manchester, UK
July 1, 1994: Anniversary of NPT
July 25, 1994: International collaborative action day on CTB issue
July 8-18, 1994: International Summer-School on Science, Arts Control and Global Conflicts in Germany
Autumn, 1994: INESAP Meeting (date and place need to be fixed)
Dec. 1-3, 1994: IFSH South Asia project workshop in Germany
April 17-May 12, 1995: NPT Extension Conference, New York

The International Network of Engineers and Scientists for Global Responsibility

“Global developments are in conflict with basic requirements for human survival... Large stores of weapons for mass destruction, over-exploitation of common limited resources, and a heavily unbalanced world economy provide fundamental challenges to human civilizations... Engineers and scientists play key roles in both the processes that threaten international security and those that provide hope for the future...”

These words are from the founding statement of INES, established in November 1991 at an international meeting in Berlin attended by 1700 people. In less than three years, INES has grown to association of over 40 organizations as well as individuals from 33 countries on 5 continents. Its unique international and interdisciplinary character facilitates communication and catalyzes cooperative study and action among engineers and scientists everywhere.

Within its decentralized structure, INES may act as both resource and coordinator in programs independently originated by member organizations or individuals. To promote common goals of peace and security, sustainable development, and responsible use of science and technology. Member participation in such programs is, of course, optional. Some groups or actions already developed within the network are:

- INESAP, concerned with military to civil industrial conversion. In collaboration with Swedish engineers, model studies and conversions of installations in Estonia and St. Petersburg are in progress.
- INESAP, concerned with technical and political aspects of nuclear proliferation, inspection, and disarmament.
- Groups working on university curricula: ethics and responsibility in science; sustainable energy sources; student affiliate programs, etc.
- An international conference on the role of science and technology in regional development to be held in Cairo in November 1994.

INES’ global effectiveness requires a wider membership, particularly among American engineers and scientists. The INES Newsletter appears quarterly, to inform members of relevant organizations, programs and events. We urge you to join.

For further information, write to:
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INESAP Participation Form

name, surname ________________________________
profession ________________________________
affiliation ________________________________
address ________________________________
phone ______ ______ fax ________________________________
email ________________________________

☐ yes, I would like to join INESAP activities
☐ yes, I want to receive the INESAP Information Bulletin regularly
☐ yes, I want to be linked to the NPT review and extension process via e-mail
☐ yes, I want to participate actively in INESAP by doing some of the following ________________________________

place, date ________________________________
signature ________________________________