UNIDIR/90/34

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United Nations Institute for Disarmament Research
Geneva

Verification: the Soviet Stance

Its Past, Present and Future

Mikhail Kokeyev and Andrei Androsov

UNITED NATIONS
New York, 1990

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UNIDIR/90/34

UNITED NATIONS PUBLICATION

Sales No. GV.E.90.0.6

ISBN 92-9045-042-8

01900P

PREFACE

The internationally agreed objective of general and complete disarmament under effective international control includes by definition the important element of verification. The Final Document of the First Special Session of the General Assembly devoted to Disarmament also stated clearly that - "Disarmament and arms limitation agreements should provide for adequate measures of verification satisfactory to all parties concerned in order to create the necessary confidence and ensure that they are being observed by all parties".

Despite this early consensus around the need for adequate verification it is well known that rapid advances in the area of verification were in fact made in the late 1980s and have spurred progress in disarmament and arms limitation negotiations. Resolutions at successive sessions of the General Assembly reflect this burgeoning area of agreement in a vital aspect of disarmament. UNIDIR has already published research reports and research papers on verification issues and a number of research projects on verification are being implemented at the moment. The March 1990 issue of the UNIDIR Newsletter is also devoted to this subject.

At the same time UNIDIR has for many years conducted a research project under which national security concepts of states are described and analysed. Within the scope of this project it was considered useful to focus on national approaches to the question of verification so as to increase the understanding of national positions on this important question.

The research report on the policy of the USSR towards verification is the first to be published in this series. There is some significance in this because a dramatic change has occurred in the Soviet stance towards verification after 1985. Mikhail Kokeyev and Andrei Androsov, who are with the Ministry of Foreign Affairs of the USSR, have provided a detailed description and analysis of the evolution of the Soviet Union's policy towards verification from the early 1920s to the present. Examining the verification provisions of disarmament treaties and agreements in existence and under negotiation they provide us with useful insights into official approaches to the subject. They conclude with a chapter explaining the USSR proposal to establish an international verification agency.

The views expressed in this publication are of course the responsibility of the authors and not of UNIDIR. Although UNIDIR customarily takes no position on the views and conclusions expressed by individual authors it does assume responsability for determining whether research reports merit publication and, consequently, we commend this report to the attention of its readers.

Jayantha Dhanapala
Director

UNIDIR

United Nations Institute for Disarmament Research

UNIDIR is an autonomous institution within the framework of the United Nations. It was established in October 1, 1980, by the General Assembly for the purpose of undertaking independent research on disarmament and related problems, particularly international security issues.

The work of the Institute, which is based on the provisions of the Final Document of the Tenth Special Session of the General Assembly, aims at:

(a) Providing the international community with more diversified and complete data on problems relating to international security, the armaments race and disarmament in all fields, particularly in the nuclear field, so as to facilitate progress, through negotiations, towards greater security for all States, and towards the economic and social development of all peoples;

(b) Promoting informed participation by all States in disarmament efforts;

(c) Assisting on-going negotiations on disarmament and continuing efforts to ensure greater international security at a progressively lower level of armaments, particularly nuclear armaments, by means of objective and factual studies and analyses;

(d) Carrying out more in-depth, forward and long-term research on disarmament so as to provide a general insight to the problems involved and stimulating new initiatives for new negotiations.

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CONTENTS

INTRODUCTION

For decades, heated debate and sharp conflict have been centered on verification, this ever-present aspect of disarmament talks and agreements. More often than not it was a stumbling block, sometimes even causing disruption of potential understandings.

Now that new political thinking is winning ever wider recognition in international relations, resulting in disarmament agreements providing for unprecedented verification procedures, when critical and self-critical analysis allows one to see better the mistakes made and the chances lost and to derive lessons from that, the authors of this study think it important to set forth, in retrospect, the evolution of the Soviet concept of verification, to show its present impact on verification in specific areas of disarmament and on the course of events in the foreseeable future.

During more than 70 years of the USSR's existence the evolution of the Soviet approach to disarmament and, consequently, to verification has gone, as we see it, through several stages.

The first stage spanned the early 1920s. It was then, right after the end of the Civil War and foreign military intervention, that the young Soviet Union came up with far-reaching disarmament proposals, of which daring and profound verification measures were an integral part. That original Soviet concept of verification was innovatory, consonant with the most advanced ideas of that time, some of which have lost none of their urgency today.

At the same time the views of the world's first socialist state on verification were shaped largely under the influence of the heavily ideologized approach in which the general correct tendency and innovatory solutions, such as the establishment of an international mechanism, invitation of working class representatives to take part in inspections, and so on, existed, for instance, together with a demand to exclude from that process professional servicemen and those members of the bourgeoisie and government officials who are linked with the military-industrial complex.

The Soviet stance on verification began to take shape in 1922, when the Russian Federation was getting ready for taking part in the Moscow Disarmament Conference.[1] From then on the Soviet approach to verification was long determined by the goal set in the disarmament area. During that period the Soviet Union sought an understanding among all states of general and complete disarmament as the ultimate goal. And one of the arguments advanced by Soviet diplomacy in favour of general and complete disarmament was the assertion that its verification would be easier to conduct than verification of partial disarmament. However, the

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[1] The Moscow Disarmament Conference was held on December 2-12, 1922. It had been convened on the initiative of the Soviet Government which proposed to the governments of Poland, Latvia, Estonia, and Finland to conduct mutual proportionate reduction of the land forces by 75 per cent within 1.5 to 2 years. It was proposed also that military spending be cut back and other disarmament measures be taken. However, verification was not discussed in practical terms because of the differences over essential aspects.

Soviet Union did not insist on having "all or nothing at all" but was prepared to consider other proposals on arms reduction as well.

At that time the Soviet side suggested original forms, methods and means of verification, such as an international control body, a "budget control" method, exchange of information on the arms forces and armaments, and on-site inspection.

The Soviet stance on arms control was presented in far greater detail in the draft convention on immediate, complete and general disarmament, issued on February 15, 1928.[2] It was circulated by the Soviet side on the eve of the Fifth Session of the Preparatory Commission for the General Conference on Disarmament.

The basic principles underlying a system of verifying general and complete disarmament proposed in the Soviet draft were as follows:

- reciprocity;
- necessary involvement of the public at large in disarmament verification measures;
- openness and publicity;
- the decisions passed by an international control body as regards verification of compliance with the convention should be mandatory to all the parties.

The draft provided for setting up a ramified network of control bodies under the supervision of an International Permanent Verification Commission (IPVC).

A new element in the Soviet stance at that time was that the IPVC was not only to verify compliance with the understandings reached, but largely to ensure the security of states in the conditions of disarmament.

The questions related to setting up control bodies, to their functions and operation, were thoroughly elaborated in the Soviet proposal.

Article 47 of the draft convention envisaged, for instance, that the IPVC would be composed, on principles of parity, of delegates from legislative bodies and professional or other working organizations of all the parties to the convention, and that in future the IPVC may include representatives of international public organizations coming out for peaceful relations among states and living up to their goals.

Control commissions were to be set up in a similar way in each state. It was specified that members of control bodies could not be:

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[2] The Draft Convention on Immediate General and Complete Disarmament, February 15, 1928. See: 50 Years of the Soviet Union's Struggle for Disarmament, a collection of documents, Nauka Publishers, Moscow, 1967, pp. 72-98 (in Russian).

- retired professional servicemen and officials of army, naval and air-force ministries;
- owners and big shareholders of military factories and owners and big shareholders of banking and trade enterprises interested in military industry or in arms trade, as well as executives at these enterprises (Article 54 of the draft).

Much stress in the draft was on the need to ensure wide openness and publicity. In keeping with Article 55, all states were to render the control bodies any assistance in all-round inspection of state, public and private activity associated with disarmament or which, according to the IPVC or its agencies, cause doubts about the possibility to observe the solemnly assumed obligations on disarmament and on ending all military preparations.

The draft convention was discussed at the fifth session of the Preparatory Commission, held on March 15 to 24, 1928, but was rejected. In response to that, the Soviet government urgently drafted and submitted an arms reduction treaty on March 23, 1928.[3] The draft treaty envisaged a partial reduction of all types and categories of armaments and an adoption of a proportionate reduction coefficient which would be the biggest for the stronger states. In that document verification provisions were further elaborated on. In that draft an idea of on-site inspection - to be conducted on an international basis in cases of a well-founded suspicion that one or another states failed to comply with the commitments assumed under the convention - was advanced for the first time in an official Soviet proposal.

To monitor the winding down of military production it was suggested that "permanent working control" be established at relevant facilities.

Considering that the draft convention provided only for partial disarmament, it included also the idea of turning the IPVC from a verification body into a disarmament agency working on ways of further reducing the armed forces and armament and drafting relevant international accords.

The discussion of the Soviet draft was postponed until the next, the sixth, session, held in April 1929, when it was rejected by the majority of the Western states.[4]

The 1920s and 1930s, it will be recalled, saw no significant disarmament results. The Soviet proposals on arms limitation and disarmament, as well as on verification, finding no support, were ultimately rejected.

A new stage in the evolution of the Soviet approach to verification started after a long break during World War II whose nuclear ending changed cardinally the political and military strategic situation in the world.

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[3] Ibid., pp. 105-119.

[4] In particular, the US Government was strongly opposed to the verification proposals. The directives of the State Secretary for the preparatory commission emphasized that the United States would not tolerate inspection or observation by foreign bodies or individuals. (See: Papers Relating to the Foreign Relations of the United States, 1926, Vol.I, Washington, 1941, p.88).

Though the activities of the anti-Hitler coalition and the United Nations were conductive to the joint efforts to ensure international security, also through disarmament, the development of a new type of strategic weapons and the political plans to provide unilateral security with reliance on these weapons brought about a cardinal turn in the post-war years towards the unrestrained arms race, and above all, the nuclear arms race.

In that situation Soviet diplomacy concentrated on two objectives: prohibition of nuclear arms and achievement of general and complete disarmament. In practical terms, its attention was focussed on drawing up proposals which, on the one hand, would provide effective arms control in the context of the Soviet 1946 proposal on completely banning the production and use of atomic weapons[5] and, on the other, would enable the USSR to eliminate the country's lag in atomic research, should the USA refuse to accept a complete ban on nuclear arms. Therefore the Soviet Union opposed the US proposal on establishing control over nuclear research (the so-called Baruch Plan),[6] seeing in that proposal an attempt to retain the superiority of the United States while its atomic weapons would remain intact.

On June 11, 1947, the Soviet Union submitted to the UN Atomic Energy Commission a proposal[7] on strict international control over the production of atomic raw and other materials and atomic energy and allowing free atomic research on the condition that such activity would be aimed at peaceful uses of atomic energy.

In the first half of the 1950s, the USSR was busy elaborating in detail the Soviet stance on verification with regard to reduction of armed forces and armaments, and primarily in relation to prohibition of nuclear arms.

The Soviet verification concept was based on the principle according to which international control bodies would only verify compliance of states with their commitments, while adoption of measures of punishing the states transgressing disarmament accords would be within the competence of the UN Security Council which was, according to the UN Charter, the chief body responsible for the maintenance of international peace and security.

The principle of adequacy of control measures for the disarmament actions conducted by the states at each stage of the process was further developed in the Soviet stance. The Soviet government considered that the functions and extent of verification depended directly on the state of relations between countries and the character and significance of disarmament measures. The extent of verification, including a possibility of inspections, was regarded in close relationship with measures to ease international tensions and build confidence between states, primarily between the big powers. The Soviet side held the view that, as understandings on disarmament would be reached, including agreements on substantial cuts in the armed forces and armaments, and a complete ban on nuclear arms when their manufacture would be stopped and would be removed from the arsenals of states and scrapped, the barriers in the way to extending verification and inspection would become unnecessary.

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5 The Soviet proposal on imposing a complete ban on the manufacture and use of atomic weapons was submitted on June 19, 1946, by the Soviet delegation at the UN Atomic Energy Commission. (See: Doc. AEC/7).

6 United Nations, Atomic Energy Commission, Official Records, First Meeting, Friday, 14 June 1946, New York, 1946).

7 United Nations, Atomic Energy Commission. Doc. AEC/24.

A great point at issue at that time was what should come first - disarmament or control. Considering that in the 1950s and 1960s the military strategic balance was not in favour of the USSR, it was only logical that it did not want inspection to become an activity having nothing to do with genuine disarmament, and it especially did not want inspection bodies to collect intelligence on the armaments of states while no disarmament would be taking place.

A possibility of using such a form of verification as on-site inspection[8], which the West was so adamant about, was viewed in most general terms. Precisely at that time the stubborn insistence by Western countries on on-site inspection, which at times was nothing short of obsession, bred distrust in the USSR in this form of control. Moreover, in that atmosphere of suspicion of partners in the international arena, distrust grew into a stable bias against on-site inspection which persisted until quite recently. The Soviet concept at that time actually allowed the use of this most developed form of international control only in conditions of general and complete disarmament.

The "open skies" proposal by Dwight Eisenhower - which was advanced at the Geneva summit meeting of the Soviet Union, the United States, Britain and France in July 1955 - was also viewed from that angle. It was rejected by the Soviet side[9] on the grounds that the information on the location of Soviet strategic objectives could be used by the United States for more accurate aiming of its nuclear weapons, which in the conditions of US multiple superiority in atomic weapons, gave those weapons a potential of a disarming first strike.

The different attitudes to verification reflected the cardinal differences in the approach to disarmament or, viewed in a broader context, the confrontation in East-West and Soviet-American relations. The cold war which reigned then in the relations between states often pushed them to extreme and unyielding positions, while the predominant approach in propaganda, that is, a tendency primarily to discredit the opposite side while presenting itself in a most favourable light, prevented a profound analysis of security problems, including verification, and a constructive search for mutually acceptable solutions in this field.

In view of the difficulties arising in the way of reaching concrete partial understandings and the accusations of the USSR of being unwilling to accept all-embracing control, the Soviet leadership passed a decision in 1959 to advance a large-scale proposal on general and complete disarmament which could, in its opinion, provide conditions for complete and unlimited control.

Soviet Prime Minister Nikita Khrushchev submitted to the plenary meeting of the 14th Session of the UN General Assembly, a declaration of the Soviet Government on general and

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[8] That the West used the verification issue for improper purposes is testified, for instance, by William R. Frye, an outstanding US scientist. Some sceptics ask, he says, whether the demand that inspections should precede an understanding on reduction (whose extent was not stipulated) was made to provoke the USSR to give a negative answer. Alva Myrdal, who quotes the above observation by William R. Frye in her book *The Game of Disarmament*, says, that though it refers to a specific period of history, it is certainly applicable in a broader context. (See: Alva Myrdal, *The Game of Disarmament*. How the United States and Russia Run the Arms Race, Pantheon Books, New York, pp.80, 346).

[9] N.S. Khrushchev, the speech at the Fourth session of the USSR Supreme Soviet (the fourth convocation), December 29, 1955 (Pravda, December 30, 1955).

complete disarmament[10]. In that declaration an attempt was made to produce a cardinal solution to the verification problem and decide the contradiction between the need to offer foreign inspectors access to military and other facilities and the apprehension that, so long as disarmament was not entirely completed, the information obtained during such inspections might be used to the detriment of national security and that inspections would become a kind of foreign patronage. Therefore the declaration proposed a programme of general and complete disarmament to be carried out as soon as possible (within four years), and after that an international inspection body would be given free access to all facilities subject to verification, including a possibility of air observation and air photography over the territory of states. The extent of verification and inspections during the phased implementation of the programme would depend on the extent of disarmament carried out by states.

The "confidence-disarmament-verification" formula looked logical enough and allowed the start of a dialogue with other countries on specific aspects of carrying it into life. And though the hopes for general and complete disarmament, and consequently for all-embracing verification, have not been fulfilled to this day, it marked definite progress at that time and the positions of the sides were being brought nearer. It greatly facilitated the dialogue with the United States on disarmament and, in particular, on the text of the joint declaration of the principles underlying disarmament talks, known as the Zorin-McCloy Declaration[11], at the Soviet-American talks in 1961.

Though it had no practical continuation in the sense that the goal it had set (achievement of concord on a programme which would make disarmament general and complete) was not attained, it had a positive role to play in smoothing out the differences in the approach of the two countries to principles of control. Item VI of the Declaration stressed that:

> All measures of general and complete disarmament should be implemented from beginning to end under strict and effective international control as would provide firm assurance that all parties are honouring their obligations. During and after the implementation of general and complete disarmament the most thorough control should be exercised, the nature and extent of such control depending on the requirements for verification of the disarmament measures being carried out in each stage. To implement control over the inspection of disarmament, an international disarmament organization including all parties to the agreement should be created within the framework of the United Nations. This international disarmament organization and its inspectors should be assured unrestricted access without veto to all places as necessary for the purpose of effective verification.[12]

Considering the outcome of the discussion of the Soviet initiative and the joint Soviet-American declaration in UN agencies, the Soviet stance on control in the conditions of general and complete disarmament was set forth most fully in the Draft Treaty on General and Complete Disarmament Under Strict International Control submitted on March 15, 1962.[13]

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[10] The Declaration of the Soviet Government on General and Complete Disarmament, submitted by Nikita Khrushchev, chairman of the USSR Council of Ministers, at the plenary session of the 14th session of the UN General Assembly on September 18, 1959 (UN Doc. A/4219).

[11] United Nations and Disarmament, pp.87-88.

[12] UN Doc. A/4879.

[13] ENDC/2 and ENDC/2 rev. 1.

That thoroughly elaborated draft provided for general and complete disarmament to be accomplished in three stages within five years. All the disarmament measures were to be accompanied by effective verification. Presenting the Soviet initiative at the Eighteen Nation Committee on Disarmament, the USSR Minister of Foreign Affairs declared that:

> The USSR is ready to accept any proposals on disarmament control which Western powers may come up with, if they accept the Soviet proposals on general and complete disarmament. Precisely this lies at the basis of solution to verification problems in the draft treaty offered by the Soviet government.[14]

The early 1960s saw the start of international detente, when real opportunities opened up for devising practical measures to diminish the threat of nuclear war.

We shall not analyse in detail what had brought about the improvement of international relations, for in that case we would have to go beyond the limits of this study, and only say that we believe that the elimination of US monopoly on nuclear arms and the loss by the United States of the strategic invulnerability of its territory, as well as the gradual levelling out of the strategic balance, offered a good chance for seeing the need for a more vigorous search for forms of international relations other than cold war. Meanwhile the radical change in the military strategic situation at the turn of the 1970s, when a strategic balance was achieved between the Soviet Union and the United States, consolidated peace and provided the basis for going over to a constructive and productive dialogue on all aspects of international security, including verification.

The 1960s and 1970s proved favourable enough for the disarmament process, and a series of major multilateral and bilateral agreements were signed precisely then.

The "thaw" in Soviet-American and international relations that had started in the 1960s had, on the whole, a positive effect on the development of verification measures, though progress there could have been greater. In fact, verification principles were agreed upon only when their application in the foreseeable future was hardly probable (the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and other Celestial Bodies)[15], or when verification did not affect directly the activities of nuclear powers (the Treaty on the Non-Proliferation of Nuclear Weapons)[16], or when the sides were ready to confine themselves to the use of national technical means. (SALT-I and SALT-II)

In fact, the only practicable verification measure at that time was the understanding on using national technical means in keeping with generally accepted principles of international law.

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[14] ENDC/4 rev. 1 and ENDC/PV2.

[15] Article XII of the Treaty says: "All stations, installations, equipment and space vehicles on the moon and other celestial bodies shall be open to representatives of other States Parties to the Treaty on a basis of reciprocity. Such representatives shall give reasonable advance notice of a projected visit, in order that appropriate consultations may be held and that maximum precautions may be taken to assure safety and to avoid interference with normal operations in the facility to be visited."

[16] Article III (1.) says: "Each non-nuclear-weapon State Party to the Treaty undertakes to accept safeguards... for the exclusive purpose of verification of the fulfillment of its obligations assumed under this Treaty with a view to preventing diversion of nuclear energy from peaceful uses to nuclear weapons or other nuclear explosive devices."

Though suppositions are normally absent in records of history, still one may well suppose that more effective verification of disarmament could be agreed upon already in the 1970s. Objectively, conditions existed for that. One example of this is the unratified Treaty on Underground Nuclear Explosions for Peaceful Purposes containing provisions for access to the sites of explosions, which may be regarded as forerunners of on-site inspection.[17]

A retrospective analysis of that situation indicates that in the 1970s there was a need to change the approach to the on-site inspection issue and bring it in line with the strategic situation that was really taking shape. Before the parity was achieved, Soviet cautiousness with regard to inspections was understandable, whereas after parity was reached it was an anachronism to retain that position. The words and deeds did not tally, which shook trust in Soviet disarmament initiatives and in the sincerity of the USSR's intentions.

The USSR's inflexible approach to complex verification problems prevented it from seeing that its timely solution, with due account of mutual concerns, could speed up the disarmament process.

The viewing of practically all problems through the "inevitable" East-West prism and Soviet-American confrontation led to a situation in which an unbiased attitude to the position of the other side was greatly hampered. Things were made still worse as one of the sides always suspected the other one of perfidy and both strived to outwit each other in the propaganda game. The more persistent either of them was in propounding its ideas, the greater resistance was put up by the other side. Precisely this explains the fact that the Soviet Union sought first an agreement on disarmament measures and only after that on verification, while the United Nations, suspecting the USSR of possible violations of future agreements, wanted to play safe and demanded that some or other measures on arms reduction under the obligations assumed by states should be carried out only after a control body would decide that it would be capable of verifying compliance with the obligations. Objective assessment makes it also clear that in some instances priority to verification in the Western stance reflected a genuine wish to conclude effective and verifiable agreements. But one should not ignore the fact that the problems of verification and the Soviet Union's unpreparedness to accept some of its forms and methods were often used by the other side as a pretext for dragging out the talks in those aspects of disarmament where it was not interested in achieving progress.

The turning point, or rather a revolution, in the Soviet attitude to disarmament occurred after 1985, when a new generation of politicians came to power in the country, those who set out to renovate society cardinally along the lines of democracy and openness and respecting the right to a freedom of choice.

As regards foreign policy, that restructuring meant ruling out dogmatism, subjective attitudes and the imposition of one's views as the only correct ones. It led to the elimination of a difference between words and deeds, when official statements were not always backed up by appropriate decisions during talks. Having placed the concept to the inter-related and inter-dependent world at the basis of its policy, Soviet diplomacy attempted to take a look at itself

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[17] Article IV of the Treaty envisages that each Party shall "provide to the other Party information and access to sites of explosions and furnish assistance in accordance with the provisions set forth in the Protocol to this Treaty".

from the outside, as it were, through the eyes of other people, and understand their concerns and apprehensions. That critical analysis helped overcome many stereotypes which had long restricted the opportunities of the Soviet side, including its attitude to verification.

Having realized that the arms race has led mankind to the brink of an abyss, that the security of individual states and the world community as a whole could not be based solely on military methods, that military containment should give way to a political and legal one, the USSR has revised critically its conceptual and practical approach to the verification problem. It took the USSR time and a good deal of effort to go over from the gains like the 1986 agreement on on-site inspections in keeping with the Stockholm document on confidence-building and security measures in Europe to formulating an integral philosophy of verification, and it took the path of accepting any effective ways of mutual verification of disarmament and arms limitation. The authors of this study will try to review this uneasy process of applying new political thinking in the verification sphere to concrete areas of disarmament.

CHAPTER ONE

VERIFICATION OF COMPLIANCE WITH AGREEMENTS ON THE LIMITATION, REDUCTION AND LIQUIDATION OF ARMS - A FACTOR OF GENERAL SECURITY

In the programme of eliminating nuclear and other types of mass destruction weapons, advanced by the Soviet Union on January 15, 1986[18], it was clearly formulated that "verification of the destruction or limitation of arms would be carried out both by national technical means and through on-site inspections. The USSR is ready to reach agreement on any other additional verification measures." So the problem of verification, viewed in a broad political context, no longer existed. To reach concrete understandings on disarmament the USSR has become open to any forms and methods.

The USSR changed its stance on verification, which has made it possible to attain rapid progress at a number of disarmament talks, above all at the Soviet-American talks on nuclear and space weapons. It has been generally recognized that the signing of the INF Treaty[19] demonstrated how problems like verification of the elimination of nuclear arms, problems that are so delicate from the point of view of national security, can and should be solved. It turned out that our national interests will be met better if we open the doors of our nuclear "workshops" wide for foreign inspectors and if we ourselves are admitted to foreign nuclear facilities. Naturally, we do not give credit for this success entirely to ourselves - without reciprocal political will displayed by our partners, agreement would have hardly been possible.

The new Soviet concept of verification was reaffirmed, and new elements were added to it at the Third Special Session of the UN General Assembly Devoted to Disarmament. Speaking at the session, Soviet Minister of Foreign Affairs Eduard Shevardnadze said:

> As we see it, among the major tasks confronting the world community, and directly the forums on disarmament functioning in the UN system, is the formulation of a disarmament concept which should be based on the idea of the integrity and interdependence of the world today.
>
> We want to see the disarmament process and, correspondingly, the verification system, just as integral.
>
> It turns out that common sense, embodied in the institutions of verification and inspection, can be far stronger than mystical fear before the wide open door of a nuclear arsenal.
>
> Having opened the roads to verification to the utmost, the Soviet Union has facilitated the assertion of new forms of communal conduct on the earth and the accomplishment of communal conduct on the

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[18] The Programme was circulated as an official document at the Conference on Disarmament (CD/649).

[19] See: item 1. "Verification of the Initial Stage of Nuclear Disarmament. The INF Treaty "in Chapter Two of this book, pp. 26-47.

> earth and the accomplishment of a genuinely revolutionary change in the traditional views on the limits of openness in the relations between states.
>
> This revolution, which we have good reason to be proud of, should be extended to other spheres of disarmament as well, and also to regional conflict. Verification in this case is the main question. Because without it the very advancement towards settlement is jeopardized.[20]

As the sides go over to genuine disarmament, the emphasis is on making verification wide enough to provide adequate confidence that an assumed commitment is observed by all. If verification cannot provide 100 per cent certainly that an agreement is complied with, then at least it should place the signatories in such conditions in which any attempt to violate or by-pass an agreement would be inexpedient militarily, politically and economically.

Considering that the time factor has become so important and that some countries fear that verification may be pushed into the background, the Soviet Union has agreed that during negotiations the elaboration of disarmament measures should go parallel with the solution of verification problems in order to rule out delays in producing comprehensive understandings and in some cases, through carrying out verification measures in the first place. Thus, in the joint Soviet-American statement signed in Washington by Soviet Foreign Minister Eduard Shevardnadze and US State Secretary George Shultz on the start of full-scale bilateral talks on the limitation and, ultimately, the complete cessation of nuclear tests says:

> In these negotiations the sides as the first step will agree upon effective verification measures which will make it possible to ratify the USSR-US Threshold Test Ban Treaty of 1974 and Peaceful Nuclear Explosions Treaty of 1976, and proceed to negotiating further intermediate limitations on nuclear testing leading to the ultimate objective of the complete cessation of nuclear testing as part of an effective disarmament process.[21]

The philosophy of the new Soviet approach to the problem of genuine verification is, among other things, that so long as there is a deficit of mutual confidence, verification measures are to serve as a major guarantee of international security, of it's stability in the military sphere. As further progress is being achieved in the efforts to reduce and eliminate some types of nuclear arms and limit military potentials to a level of reasonable sufficiency, the significance of verification will be growing. Without verification one cannot be sure that agreements are complied with, and so there would be no trust, without which cardinal disarmament is hard to imagine. Having entered a definite phase of elimination of nuclear arms as well as other mass destruction weapons to be scrapped in future, the USSR believes that disarmament, which will increasingly affect the vital interests related to the security of states, should be accompanied by ever stricter verification.

At the same time, even all-penetrating verification measures should not turn the signatories of an agreement into suspects. By creating confidence that possible violations would be detected, verification builds up mutual trust. Being a guarantee of "natural" observance of voluntarily assumed commitments, verification can in future acquire new functions largely exceeding the limits of checking compliance with disarmament agreements. A ramified

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[20] UN Doc. A/S - 15/PV 12.

[21] Pravda, September 19, 1987.

infrastructure of all-penetrating verification combined with great openness can gradually replace nuclear deterrence with verification deterrence.

The Soviet Union is for a serious and substantial approach to numerous verification problems, both political and military-technological ones. They should be solved, as the Soviet-American INF talks have clearly shown, through joint efforts, with due account of mutual concerns, advancing towards the main objective, - stringent observance of the commitments assumed by all parties.

To attain this goal, the USSR is ready to use the widest diversity of forms, methods and means of verification, - national and international.

Proceeding from the experience already gained, the USSR is of the opinion that national technical means (NTM) are most important means of verification. They emerged initially as the means of remote surveillance of the armaments and armed forces of the other side. But in the field of disarmament they have acquired a new quality, that of a guarantee that the sides will comply with the commitments assumed under an agreement.

The positive role of the NTMs is recognized by most states, and they can be made more effective if special provisions banning interference with their operation, or deliberate concealment of weapons are added to the agreements. National technical means can be made more effective by other additional measures, as, for instance, by coordinate regulations for counting the weapon systems covered by an agreement, exchange of quantity data on armament, notification of future actions to be monitored under an agreement, such as test launching of missiles.

Another important merit of NTMs is their non-intrusiveness, which allows one side to obtain independently, information on whether the other side observes it's commitments under an agreement without excessive intrusion into sensitive areas of national security associated with state, military or commercial secrets.

However, NTMs are not a universal means of verification and have a few drawbacks. First, not all states have them and, therefore, in the agreements envisaging the participation of these states in verification cannot be confined to NTMs alone if requirements of reciprocity and equity are to duly met. Second, even the most perfect methods of national technical verification cannot rule out altogether misunderstandings and disputes over compliance with agreements. Therefore the use of NTMs should, whenever necessary, be complemented by other means and methods of verification.

There has been much emphasis of late on including on-site inspection in the agreements and treaties that are been drafted. As it has been evolving, the Soviet stance on verification has actually removed all barriers in the way to using most diverse forms of on-site inspection. Incidentally, some opponents of the USSR at the disarmament talks who earlier insisted on on-site inspection, now come up with reservations in a bid to exclude some areas of disarmament from this verification method. As for the Soviet Union, it is prepared to go as far as its partners in the talks would go in these matters.

The exchange of information among parties to agreements on inquiry or on a regular basis, communication of data to a control body or to a data bank, and bilateral or multilateral consultations have no mean role to play in exercising verification.

Effective verification of disarmament measures may be carried out by special control bodies set up by agreement, or by international organizations entrusted with control functions by arrangement among the parties and with the consent of those organizations. One should remember in the first place the immense experience of the International Atomic Energy Agency (IAEA) in verifying the non-use of peaceful atomic plants for developing nuclear arms and other nuclear explosive devices.

Conferences on verification of compliance with agreements are an effective element of control. Held regularly, they give the signatories an opportunity to study closely how the commitments are fulfilled in practice, check the effectiveness of envisaged verification systems, and make corrections in the functioning of control mechanisms when necessary. These conferences have proved effective and useful.

The USSR highly values the contribution made by the United Nations to the efforts to solve verification problems on a mutually acceptable basis. It has been possible to arrive at general understanding, though not without acute political struggle, on some chief principles of verification, which were formalized in the Final Document issued by the First Special Session of the UN General Assembly Devoted to Disarmament and in the Report of the UN Disarmament Commission prepared at the session in 1988.[22]

The international community has arrived at a common understanding of the purpose of verification as a means of ensuring compliance with disarmament agreements. The great importance of verification for the observance of agreement has been widely recognized. At the same time it has become obvious to all that verification is not an end in itself but a major element in the process of coming to terms on arms limitation and disarmament, a factor influencing the states' decisions on concluding these agreements along with other ones, - political, military-strategic, technological, etc.

It has been agreed that verification should be proportionate to disarmament, that openness will make verification more effective, that verification measures should be carried out without any discrimination, and while the goals set in these measures are being attained, there should be no unjustified interference in the domestic affairs of the signatories or other states, nor should there be a threat to their economic, technological or social development, that the system of verifying compliance with any agreements, facilities, sites, installations, and types of activities mentioned in that agreement. These and many other principles agreed upon in the United Nations may serve as a guide for states in devising verification procedures at disarmament talks.

While noting definite progress in this sphere, it must be stressed that the opportunities of the United Nations and its specialized agencies are by far not yet fully used. Moreover, the present level of debate on verification issues at the UN, and the large number of specific

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[22] UN Doc. A/S - 15/3.

proposals on disarmament submitted to date have created a favourable climate for the group of government experts to conduct a comprehensive study of the entire range of verification issues. The resolution adopted at the 43rd Session of the UN General Assembly on studying the role played by the United Nations in verification should become a major step towards joint coordination of both theoretical and practical aspects of verification.[23]

World public opinion is an inexhaustible source of ideas and proposals. In our view, it is important that more scientists and public figures be involved in an active search for solutions to many problems related to verification of disarmament . Their fresh and non-standard views often come very useful. Sometimes they may help break the deadlock in solving some or other problem. It may be recalled how the joint Soviet-American experiments on testing the methods of monitoring the nuclear test ban had a favourable effect on the debate of this issue and became a forerunner of the joint verification experiment at the nuclear test ranges of both sides that followed in the framework of state-level negotiations between the USSR and the USA.

The UN conference attended by public representatives and non-governmental organizations on verification of compliance with arms limitation agreements, held in Dagomys from April 12 to 16, 1988, at the initiative of the USSR, proved useful, in the opinion of it's participants.

The idea of setting up a Soviet-American commission of scientists, which would suggest it's views and recommendations to both the US Administration and the Soviet leadership, which was proposed by Mikhail Gorbachev during his meeting with US President Ronald Reagan in Washington in December 1987, is still valid.[24] Scientists of both countries could also make an in-depth assessment of verification means and methods and produce concrete recommendations.

The diversity and complexity of verification problems should not obscure the chief objective of verification, - the security of states through disarmament. We are convinced that verification, for all the seemingly insurmountable difficulties of it's organization, cannot and must not be an obstacle in the way of reaching agreements on disarmament. At any rate, as regards the Soviet Union, there is no form of control it would not be prepared to apply on the basis of reciprocity with the aim of limiting and then liquidating arms.

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[23] Resolution 43/81B, Study on the Role of the United Nations in the Field of Verification, envisages request to the Secretary General to undertake, with the assistance of a group of qualified experts, an in-depth study of the role of the United Nations in the field of verification that would:
a) Identify and review existing activities of the United Nations in the verification of arms limitation and disarmament.
b) Assess the need for improvements in existing activities as well as explore and identify possible additional activities, taking into account organizational, technical, operational, legal and financial aspects.
c) Provide specific recommendations for future action by the United Nations in this context.
The USSR voted for this resolution and appointed its government expert Andrei Kozyrev, Head of the Directorate for International Organization, USSR Ministry of Foreign Affairs, for taking part in the study which should be completed before the opening of the 45th Session of the UN General Assembly.

[24] The press conference by Mikhail Gorbachev in Washington, December 10, 1987 (Pravda, December 12, 1987).

CHAPTER TWO

VERIFICATION OF THE LIMITATION, REDUCTION AND ELIMINATION OF NUCLEAR ARMS

1. Verification at the Initial Stage of Nuclear Disarmament. The INF Treaty

The historic significance of the Treaty Between the USSR and the USA on the Elimination of Their Intermediate-Range and Shorter-Range Missiles[25], which entered into force on June 1, 1988, is that it eliminated for the first time a whole class of Soviet and American nuclear weapons, set new standards for the limitation and reduction of arms, and marked the start for practical nuclear disarmament. Under the Treaty, almost 2,700 missiles are subject to elimination. The sides undertook not to manufacture in future ground-launched ballistic and cruise missiles with a range of 500 to 5,500 kilometres and not to conduct their flight testing.

In these conditions, confidence that the treaty would be strictly observed is becoming not just a matter of confidence building and of meeting the legitimate interests of security. This is precisely why the Soviet side has insisted from the outset that an effective and stringent verification system with the use of national technical means in combination with on-site inspections be agreed in the framework of the INF Treaty.

The INF Treaty is innovatory in that its goal is radical and the verification measures it provides for are new and large-scale.

These verification measures may be subdivided into two large groups: notification measures and inspections.[26]

The chief purpose of notification is to grant the other side information on the changes, completed or under way, in the spheres covered by the Treaty.

A significant point to note here is that exchange of updated initial data and notifications provided for under the Treaty are conducted through the Nuclear Risk Reduction Centres set up in keeping with the Soviet-American agreement signed on September 15, 1987.[27] A facsimile

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[25] The document on the Conference on Disarmament, CD/798.

[26] For more detail see: Serge Sur, Verification Problems of the Washington Treaty on the Elimination of Intermediate-Range Missiles, UNIDIR, Research Paper No. 2, October 1988, New York, 1988.

[27] The text of the agreement and the protocols to it see in the journal Vestnik of the USSR Ministry of Foreign Affairs, No. 6, October 25, 1987, pp. 9-13 (in Russian).

communication line between these centres is used for communicating notifications and other information relevant to the INF Treaty.

A specific feature of the Treaty is not only complete elimination of all the deployed and non-deployed intermediate- and shorter-range missiles, but also the cessation of their manufacture. Besides, provisions have been made for verification of compliance with the commitments on the first ever use of six different kinds of *on-site inspection.*

- *Inspections to check the initial data*; Such inspections envisaged by the Treaty have been completed. Altogether 117 Soviet facilities (110 in the USSR, 1 in Czechoslovakia, and 6 in the GDR) and 32 American ones (19 in the USA, 7 in the FRG, 2 in the Great Britain, 1 in Italy, 2 in Belgium, and 2 in the Netherlands), have been inspected. The checking of initial data has confirmed that the Soviet and American missiles corresponded to the data declared at the time the Treaty came into force;

- *Inspections to confirm the elimination of missile operating and missile support facilities* (other than missile production ones);

- *Inspections on a quota basis*;[28]

- *Inspections at sites of elimination of intermediate- and shorter-range missiles*, launchers of such missiles and support equipment;

- *Inspections to confirm the completion of elimination;*

Inspections of non-production of missiles at production facilities. This is a special type of inspections differing from all the above-listed ones and should therefore be described in greater detail. These inspections will be conducted on a permanent basis for 13 years at the Votkinsk Machine Building Plant (Udmurt Autonomous Soviet Republic), and at Hercules Plant Number 1, at Magna, Utah.

The Votkinsk Machine Building Plant has been announced by the Soviet Union as a facility manufacturing RSD-10, OTR-22 and OTR-23 missiles (known in the United States as SS-20, SS-12 and SS-23 respectively). There are no other facilities producing intermediate- and shorter-range missiles in the Soviet Union. Hercules Plant Number 1 at the town of Magna was announced by the United States as a facility producing Pershing II missiles. Apart from that, the United States included in the Memorandum of Understanding three more missile producing facilities, two of which are designed for manufacturing BGM-109G missiles (a McDonnell-Douglas plant in Titusville, Florida, and a General Dynamics plant in Kearney Mesa, California), and one for the production of Pershing IA missiles (Longhorn Army Ammunition Plant of the

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[28] These inspections may be conducted for 13 years after the entry of the treaty into force at all the existing or former (dismantled) missile operation bases and missile support facilities listed in the Memorandum of Understanding (with the exception of missile production facilities and elimination sites). During the first three years each party has the right to conduct 20 such inspections annually, during the next five years 15, and during the last five-year period 10 inspections a year. So, all in all, the USSR and the USA will be able to conduct up to 185 quota inspections.

US ground forces at Marshall, Texas). At these three plants no inspections, neither permanent nor quota inspection, will be conducted, and verification will be carried out by national technical means.

At the facilities producing launchers for GLBMs and GLCMs (three plants in the USSR and two in the USA), there will be no constant control, but quota inspections will be conducted there.

Because of the outward resemblance between the R-12 and the RSD-10, it was decided that it was possible to arrange yet another type of inspection (until the treaty on the reduction of strategic offensive arms enters into force, but in any case during no more than three years since the entry into force of the INF Treaty). The purpose is to promote inspection by national technical means of verification in order to give the other side an opportunity to see that the treaty is not violated. To that end (in case of an inquiry regarding a corresponding ICBM operating base), it would be necessary, not later than after 6 hours, to open the roofs of all fixed structures for the launchers located there, to display the missiles in the open without using concealment measures and leave them in that position until 12 hours have elapsed since the receipt of an inquiry. It is considered that the inquiring side can become convinced with the help of satellites that precisely ICBMs, and not IRMs, are displayed at the base. Such inquiries may be made by each party six times per calendar year.

The Treaty clearly specifies the facilities open to inspection, - they are limited only to those included in the Memorandum of Understanding.

Inspections are organized so that they could ensure the receiving of all required information as soon as possible. Special points of entry for inspectors have been named - Moscow and Irkutsk in the Soviet Union and Washington and San Francisco in the United States. Brief time limits have been set for notification, ensuring practically a complete surprise effect for inspections.

Inspections have been envisaged not only in the USSR and the USA, but also in the territory of the states allied with them, where a total of 19 missile operating bases and missile support facilities are located. To provide a legal basis for inspecting them, special agreements have been concluded by the Soviet Union with the GDR and Czechoslovakia, and by the United States with the FRG, Great Britain, Italy, Belgium, and the Netherlands. The USSR has exchanged corresponding notes with the above-mentioned five West European countries, and the United States with the GDR and Czechoslovakia.

This explains the "imbalance", provided for by the Treaty, between the USSR and the USA in the number of inspections possible for each side. According to the information carried in the press, within 13 years the USSR will be able to conduct about 240 inspections in the territory of the United States and in West European countries, while the USA has the right to approximately 400 inspections in the territory of the Soviet Union, the GDR and Czechoslovakia. This is due to the fact that the Western side has one-fourth of the facilities associated with IRMs and SRMs at which all kinds of inspections may be conducted, as compared with the number of such facilities the other side has.

All this provides a reliable system of verifying strict observance of the assumed commitments. It was not an easy job, of course, to produce such a system.

During the preparation of a joint draft Treaty, which was conducted on the basis of Soviet and American drafts submitted on April 27 and March 4, 1987, respectively, problems involved in devising verification methods proved to be among the most difficult ones.

The sides agreed that compliance with the Treaty should be verified by reliable methods, including on-site inspection, but they still differed on a number of issues. Among such issues was the area to be covered by verification measures.

The USA excluded test ranges from the facilities subject to inspection. The sides also differed on the character of inspections at the facilities to be monitored. The draft submitted by the US delegation envisaged a possibility of verifying only the perimeter of their territory and also specially stipulated passage points at these facilities. The Soviet delegates in Geneva pointed out that this would inevitably impair the effectiveness of verification and insisted that it should be made more profound.

Besides, the US draft contained a provision on inspecting any facilities if there is a suspicion that production, running repairs, maintenance, storage or deployment of missiles that would become an object of a Soviet-American agreement are conducted there. The Soviet draft proposed inspections only in the deployment areas and at other facilities.

Finally, there emerged serious difference over the extent to which verification should concern third countries. The Soviet view was that beyond the boundaries of a national territory, inspections could be conducted at all localities without exceptions where intermediate-range missiles and their launchers would be, or could be, deployed. The US response to that proposal was extremely painful.

The verification problem was compounded still more due to the preservation, according to the Reykjavik formula, of 100 warheads at intermediate-range missiles outside Europe. The presence of even a small number of IRMs in the arsenals of both countries presuppose preservation of production, facilities, testing of reliability, personnel training, scheduled replacement of deployed missiles when they become obsolete, and also reaching of understanding on allowed parameters of modernization. A definite number of missiles subject to inspection should then be constantly present at producer plants, at assembly and testing bases, in places of storing, of capital or running repairs, at test ranges, and at training centres. Besides, the United States insisted that all deployed launchers (including those used for training, testing, and so on), would necessarily be outside Europe. That meant that the Soviet Union would have to build a new test range in Asia, since the only test range used for these purposes - Kapustin Yar, - was in the European part of the USSR.

In any case, this would require far more profound and thoroughly elaborated verification methods than those which would be sufficient in case of a complete elimination of IRMs. Those big additional difficulties were overcome on the basis of the "global double zero" formula.

The global option helped overcome also other differences related to disarmament measures and, consequently, to the volume and content of verification.

A large part of the differences were associated with testing mutually acceptable parameters of the *elimination process*.

The American side, in principle, called in question the expediency of eliminating nuclear warheads, asserting that they were dangerous only if there were corresponding delivery means whose elimination would help remove also the treat posed by the warheads. It referred also to difficulties of verifying the destruction of warheads. Because of their small size, it was alleged, national technical means of verification would be ineffective, and on-site inspection would obviously be limited while thousands of pieces of nuclear munitions designed for other purposes are preserved at dozens of depots by both sides. Besides, a nuclear charge can be stored separately from the warhead in a special container. The opening of the latter for inspection would give access to the design of a nuclear charge, which is among the most thoroughly guarded military secrets.

The US draft treaty envisaged the destruction, dismantling or conversion of missiles themselves and their launchers, while the question of warheads was not even raised. According to statements by American representatives, it was envisaged that warheads would be brought back within the bounds of national territory, after which each of the sides would do with them whatever it thought fit.

The Soviet draft provided for a destruction of all the main elements of a missile: not only the airframe, the engine, the systems of control and homing, but also the warhead. It envisaged that warheads would be separated from missiles and, after nuclear charges would be removed from them, they would be delivered to the elimination site. According to the explanations given by Soviet delegates, it was suggested that such separation would be done with adequate on-site inspection. Then warheads would be stored for their subsequent elimination in the agreed places in the territory of the USSR and the USA (where adequate verification would be provided), while nuclear charges would be utilized on the basis of the procedures agreed upon at the talks.

In the long run, the sides agreed on eliminating the warheads for IRMs and SRMs within the time limits fixed in the future treaty and agreed that the same procedure would be applied for the US warheads for West German Pershing-IA missiles as for all other nuclear warheads.

The US draft treaty envisaged, parallel with the dismantling or destruction of intermediate-range ballistic and cruise missiles, a possibility of *converting* them into missiles which would not be covered by an agreements. This approach was motived by the wish to avoid "squandering", since the weapons to be eliminated could be used without exceeding the limit set for IRMs. Specifically, it was suggested to use the already tested procedure of removing from Pershing II missiles the second stage and replace part of electronic equipment at their launchers. Since these changes would decrease the range of the missiles, they would then cease to be IRMs and become SRMs. It was supposed that these missiles would be preserved in Europe on a level equal with that of the Soviet Union, and a separate understanding was proposed to be reached for that.

According to the INF Treaty, what is meant here is missiles with both nuclear and non-nuclear charges. The provisions of the Treaty equally concern ballistic cruise missiles of a corresponding range, which are delivery means for weapons, i.e., weapons in general, not just nuclear warheads. Should the Treaty include a provision saying that it pertained only to nuclear missiles of a definite range, then all the measures it provides for would not refer to ballistic and cruise missiles equipped with warheads containing usual explosives or chemical toxic agents. This would greatly hamper verification of compliance with the Treaty, let alone the fact that the "conventionalization" and "chemicalization" of missiles could reduce to naught the effect achieved by the elimination of the nuclear-capable IRMs and SRMs.

The USA provided also for a possibility of *relocating* cruise missiles of longer range to ships and submarines. As a result, they would not be listed among the systems covered by the Treaty which concerns only ground based missiles.

The Soviet Union categorically objected to a missile conversion of IRMs into other types of missile, since that would actually mean a definite change in the structure of military confrontation and not its lowering, and in that case an agreement on IRMs would stimulate arms building on other levels of military balance, including a lower one (SRMs) and a higher one (SLCMs). Moreover, reconversion of Pershing II IRMs into SRMs, while lessening the danger for the territory of the USSR, present a still greater threat to the territory of it's Warsaw Treaty allies.

And, last but not least, reconversion of Pershing II missiles into SRMs would by no means rule out a possibility of converting them back. In the opinion of experts, this can be done within 48 hours. In this case observance of an IRM agreement would be extremely unreliable.

Relocation of ground-launched cruise missiles to the sea would require no changes in their design. The only difference between them and SLCMs is the yield of the nuclear charge (10-15 kilotons and 200-250 kilotons respectively). In this case the US proposal, if carried out, would mean "horizontal relocation" from the ground to the sea of missiles covered by the Treaty. That would also compound still more one of the hardest problems in another area of the negotiations concerning 50-per cent cuts in strategic offensive arms, during which the sides discuss a limitation of SLCMs. Furthermore, it would be hard to make sure that these additional sea-launched cruise missiles would not be just stored on board ships carrying intermediate-range missiles whose permitted number outside Europe, according to the Reykjavik formula, was supposed to be limited to 100 warheads (within the bounds of national territory).

For these reasons the Soviet draft treaty suggested from the outset that a provision on the elimination of missiles to be reduced by dismantling or destruction should be clearly formulated. After an understanding was reached on SRMs, the question of possible reconversion of US Pershing II missiles into SRMs on the continent of Europe became pointless, because a zero option was envisaged for the latter as well. In the context of the "double zero" formula the US side, for its part, demonstrated a realistic approach also to what concerned cruise missiles by withdrawing the condition that they could possibly be changed into sea-launched missiles.

Great difficulties emerged due to the difference in the approach to the *order of reducing* missiles. With regard to each of the planned phases of giving effect to the "double zero" option,

the USSR proposed a reduction of missiles by an equal percentage, while the USA insisted on equalizing the number of the warheads the sides have not only in Europe but on a global scale. Should the US proposal be adopted, this would mean that the Soviet Union alone would be eliminating its IRMs in the initial period, while the United States would be merely moving its missiles from Western Europe to its territory until the USSR would reduce the number of its warheads on a global scale down to the US level.

The compromise that was ultimately reached between the USSR and the USA on the order of reductions solved two problems at once: first, it ensured from the outset the inclusion of the missiles of both countries in the reduction process; second, in the course of the implementation of the Treaty it helped overcome the quantitative asymmetry by greater reductions of the IRMs and SRMs of that side which had more of them.

Already when the INF Treaty was being formulated, there emerged difficulties caused by the fact that the first stage of the Soviet ICBM RS-12M (SS-25), which is not covered by the Treaty, had outward resemblance with the first stage of the missile RSD-10 (SS-20) subject to elimination. As regards the United States, a similar situation may arise if the US Administration decides to start the production of the tactical missile Pershing-1C, which is not covered by the Treaty (it's range is less than 500 km), but has a stage outwardly resembling the second stage of the IRM stage of Pershing II.

According to the reached compromise, the sides may reserve the right to produce the stages mentioned above. The only condition is that they must not produce other stages outwardly resembling any other stage of the missiles RSD-10 and Pershing II. This, in principle, should rule out a possibility of secret preparations for assembling missiles banned under the Treaty.

Another hard problem was associated with the specifics of the manufacture of two-stage GLBMs in the USSR and the USA. Soviet RSD-10 missiles leave a production plant fully assembled and "packed" in a launch canister. Pershing II missiles are produced, and often stored in depots and transported, by separate stages which can be assembled practically anywhere and do not require special conditions for that. It is clear that, if only assembled missiles are counted, that would leave a large number of missiles which are stored or transported in stages and can be assembled at any time, uncovered by the Treaty.

At the same time problems were arising with regard to missiles produced in containers: how to see a difference between containers with missiles and empty containers and how to rule out a possible use of containers for hiding intermediate-range missiles? These problems could be solved in the following way. If missiles can be stored or transported as separate stages, then the longest stage should be counted as a complete missile. Any container for missiles should be counted in the same way if the other side does not provide proof convincing the other side that there is no missile in the container. The airframe of a GLBM is also to be counted as a complete missile.

The missile elimination methods by the Treaty are exploding and burning, and for an agreed number of IRMs (up to 100 missiles) the method is launching. Prior to elimination a warhead is removed from a missile and, after a nuclear charge is taken out, the airframe of a warhead is crushed. The fissionable material is utilized.

Launchers and support equipment are eliminated by rendering them unsuitable for being used as combat equipment. To eliminate a stationary support structure, its superstructure, removed from its foundation, is dismantled or destroyed; the foundation is demolished by removing it from the ground or by blasting it. Fuel tanks for R-12 missiles are removed from launch positions and may be subsequently used in economy. Considering the possibility of their use in economy, the sides have decided also the question of mobile launchers and vehicles for missiles (prime movers): they are not to be destroyed but only modified so that they would not be able to perform their original military functions. This does not rule out their peaceful uses, as, for instance, for carrying big-diametre pipes.

Starting the elimination process simultaneously with the Soviet Union, the United States is reducing all types of missiles proportionately, so that the initial balance between the ground-launched ballistic and cruise missiles would be maintained.

All these quality and quantity data were most thoroughly taken into account in the agreed system of verification of compliance with the INF Treaty. It proved viable even before the Treaty came into force, when it was just being prepared for signing and ratification. Thus, using the provisions of the Treaty, the sides could find, on a mutually acceptable basis, solution to a number of problems involved in verification.

The Soviet side offered its answers to the 17 questions on verification put by the US side, and the greater part of the answers were accepted. One of the difficulties, in the opinion of the Soviet States, was that the Soviet intermediate-range missiles RSD-10 (SS-20) resembled the intercontinental ballistic missiles RS-12M (SS-25). On those grounds it proposed that US inspectors be given access to the deployment areas of these ICBMs. The Soviet side submitted pictured and diagrams of both types of missiles showing that the difference between them can be determined by national technical means of verification.

The concerns of both sides were dispelled by the agreement, signed in Geneva on May 12, 1988, on the applicability of the INF Treaty to those intermediate- and shorter-range missiles that are capable of carrying weapons based on existing and new physical principles ("exotic weapons"). That very day the understanding reached by the sides on giving effect to the commitment assumed by the USSR and the USA with regard to some aspects of inspection under the INF Treaty was formalized.[29]

Stimulated by that understanding, the going over from individual measures of confidence building and openness to a large-scale policy in this sphere acquires a new dimension in practice.

Special attention in this context should be paid to the fact that some provisions of the Treaty were put into effect by the Soviet side even before the Treaty was ratified. The Treaty envisages, among other things, elimination of Soviet shorter-range missiles OTR-22 which were deployed in the GDR and Czechoslovakia in response to the deployment of American intermediate-range missiles in a number of West European countries. On February 25, it was

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[29] The texts of the agreements, the notes of the Government of the USSR to the Government of the USA and the understanding reached were published in Vestnik of the USSR Ministry of Foreign Affairs, No. 10, June 1, 1988, pp. 6-9.

announced that the Soviet government, proceeding from the understanding reached at the meeting of the Political Consultative Committee of the Warsaw Treaty countries, held in May 1987 in Berlin, passed a decision to withdraw, as a measure of goodwill, Soviet OTR-22 missiles, their launchers and the relevant support equipment, following an agreement with the governments of these countries reached before the INF Treaty entered into force.[30] In keeping with this statement, they were withdrawn in February and March 1988 back to the USSR, to places mentioned in the Memorandum of Understanding on ascertaining initial data in connection with the INF Treaty.

The preparatory work the sides carried out in the area of inspections, which stared on July 1, 1988, was creative and not formal. The inspectors visited the places to be inspected and held consultations on verification procedures and methods.

Before the first official arrival of Soviet inspectors, the US Department of Defense organized in June a trip to Huntsville, a site of the chief missile centre of the US ground forces - the Redstone Arsenal - for the journalists accredited in Washington. A similar opportunity was offered to the local and foreign journalists accredited in Bonn, Brussels and Rome.

The Soviet Union, for its part, displayed a non-standard approach to fulfilling the commitments concerning destruction of Soviet missiles.

On August 1, that is, on the first day envisaged by the Treaty for the missile elimination process, the destruction of the series of four ORT-22 missiles at the Saryozek test range was watched not only by US inspectors, but also by delegates of major peace movements from 17 countries and several non-governmental organizations of five continents who had been invited by the Soviet Peace Committee.

In accordance with the invitation handed down by the USSR Minister of Foreign Affairs at the Third Special Session of the UN General Assembly Devoted to Disarmament, representatives of the UN Secretary General, the member states of the Security Council, and also delegates of the Conference on Disarmament were present during one of the first missile elimination procedures in the vicinity of Volgograd on August 28.

The United States started the elimination process with Pershing IRMs, On September 8, the first stage of the Pershing-IA missile and the first stage of Pershing II were destroyed at the Longhorn Army Ammunition Plant, Texas. The last Pershing-IS was destroyed early in July 1989.[31]

In an interview to the *Izvestia* daily, published on September 16, 1989, USSR Defence Minister Dmitri Yazov said that by mid-September that year the Soviet Union had eliminated, in keeping with the INF Treaty, 1,259 missiles and 469 launchers, or 68 and 57 per cent, respectively, of their original number. Meanwhile the USA eliminated 375 missiles and 71 launchers, or 43.9 and 24.5 per cent of their original number. So, over 1,500 missiles have been

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[30] Pravda, February 26, 1988.

[31] Izvestia, July 7, 1989.

eliminated since the coming of the INF Treaty into force, which means that the missile elimination process is going on strictly according to schedule.

During the first meeting of the Special Verification Commission (set up to facilitate the observance of the INF Treaty), which ended on July 15, 1988, in Geneva, the sides achieved progress in devising measures to promote effective implementation of the INF Treaty provisions. The Commission has reached an understanding that agreed provisions concerning the equipment used in inspection and the methods of using it are applied on a temporary basis until the sides sign a memorandum of understanding as regard the application of the verification provisions of the Treaty.[32] The Special Verification Commission held five sessions in 1988-1989. The Memorandum of Understanding signed between the governments of the Soviet Union and the United States on the procedures regulating the activities of the Commission[33] provides a legal basis for its functioning.

The implementation of the INF Treaty since its coming into force allows us to draw a definite conclusion that its mechanism has been functioning effectively. The provisions of the Treaty are being complied with by the signatories in keeping with the obligation assumed, and this process is kept strictly under control.

Compliance with the Treaty required definite corrections in the set-up of the armies of both sides. As for the Soviet Union, as a result of the implementation of the INF Treaty, a whole arm of the service, - the troops servicing intermediate-range missiles, - is removed from the Soviet strategic missile forces, and one missile army comprising eight divisions equipped with R-12 (SS-4) and RSD-10 (SS-20) missiles is being eliminated. The numerical strength of the Soviet strategic missile troops will be reduced, on the whole, by 68,000 persons. (An Interview by the USSR Minister of Defence to the newspaper *Izvestia* on September 16, 1989). In January 1988, the National Centre on Reducing Nuclear Danger was set up at the General Staff of the Armed Forces of the USSR. Elimination monitoring centres have appeared in the arms of the service having intermediate-range missiles. Besides, a corps of inspectors has been set up.

These corrections in themselves, naturally, do not change the whole set-up of the armed forces radically, but, combined with other measures, they facilitate those changes which are in keeping with the principles of non-offensive defence and military sufficiency and form the infrastructure of disarmament.

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The INF Treaty is a concrete expression of new thinking in politics. Of fundamental significance for formulating the Soviet approach to reaching and effecting this understanding is the programme of nuclear disarmament advanced by Mikhail Gorbachev on January 15, 1986. Considering the realities of the present international situation and the practical opportunities it

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[32] Pravda, July 7, 1988.

[33] The text of the memorandum see in Vestnik of the USSR Ministry of Foreign Affairs, No. 2(36), February 1, 1989, pp. 30-32.

offers, the programme sets forth a conceptual and at the same time specific content of the struggle for having a nuclear-free world by the year 2000.

The understanding reached at the summit meeting in Geneva that the USSR and the USA will be guided, in future as well, by the conviction that nuclear war cannot be won and must not be fought was, and is, of great significance for a constructive development of the talks. The sides declared then that they were determined to prevent any war, nuclear or conventional, between the Soviet Union and the United States, and that they would not seek military superiority over each other. That Geneva declaration was confirmed also during the Reykjavik meeting between Mikhail Gorbachev and Ronald Reagan. The INF Treaty embodies that declaration in the field it deals with.

When difficulties were arising during the talks, difficulties that seemed unsurmountable, creative thought was seeking more advisable solutions. As a result, with the active support of public opinion and many countries of the world they produced a document reflecting a balance of interests and serving reliably greater general security.

With the signing of the INF Treaty and its coming into force, verification entered a new sphere, a sphere of nuclear disarmament, and mapped out a sound programme of work to be done to make progress in this and other directions of guaranteeing security through disarmament.

The unique system of verification of compliance with the Treaty is not only important in itself. It looks like the innovatory spirit of the verification mechanism of the INF Treaty and also some practical approaches and decisions it contains can be productively applied for finding adequate solutions, taking into account, naturally, the specifics of each question, and for the preparation of other bilateral and multilateral understanding concerning arms limitation and disarmament.

This potential possibility is already being used in practice. The Soviet Union and the United States have agreed to use this experience in a creative way when formulating provisions on verification as they would be drafting a treaty on 50-per cent cuts in strategic offensive arms.

2. The Treaty on 50-Per Cent Reductions of the Strategic Offensive Arms of the USSR and the USA, the ABM Treaty. Development of Nuclear Disarmament Verification

The general parameters of reductions of strategic offensive arms (SOA) were agreed upon at the Reykjavik meeting where the sides fixed the ceiling for their 50-per cent reductions, and established aggregate limits of 1,600 launchers[34] and 6,000 warheads for the strategic offensive arms of the USSR and the USA. At the Washington Summit in December 1987, an understanding was reached on a number of conceptual problems, including the formula of compliance with, and

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[34] During the talks in Jackson Hole, Wyoming, Soviet and American Foreign Ministers agreed that, considering the level of 1,600 carriers, ballistic missiles would be determined as a combination of missiles and the launchers associated with them.

non-withdrawal from, the ABM Treaty. After the Washington Summit, four joint documents have been drafted: the *Treaty on 50-Per Cent Reductions of Strategic Offensive Arms*, and also a memorandum of understanding, a protocol on inspections and a protocol on conversion or elimination, all of which are integral parts of the treaty.

At the Washington and Moscow Summits, the sides agreed that measures to verify reductions of strategic offensive arms would include as a minimum:

Exchange of data: declarations and relevant notifications of the number and location of weapon systems subject to limitation under a SOA treaty, places of their location and facilities for their production, final assembly, storage, testing, repair, training, deployment, conversion, and elimination. The sides would exchange such statements before signing the treaty and regularly update them.

Inspections to verify initial data, to make sure that the statements are accurate.

On-site monitoring of the elimination of strategic weapon systems, which is required for setting agreed limits.

On site inspections, on a permanent basis, of the perimeter and passage points at major production facilities to confirm the volume of the production of arms subject to limitation.

On-site inspections at short notice:

- announced locations in the process of reduction down to agreed top limits;
- places where the means covered by the Treaty remain after agreed top limits have been set; and
- places where such means (former declared facilities), are located.

Inspections at short notice, conducted in keeping with agreed procedures, *of places where, in the opinion of either side, there may be concealed deployment, production, storage or repair of strategic offensive arms.*

Prohibition of concealment or other activity hampering verification by national technical means. Such provisions would, among other things, prohibit telemetry encryption and ensure full access to all telemetric information transmitted during the flight of a missile.

Procedures ensuring control over the number of warheads on deployed ballistic missiles of each specific type, including on-site inspection.

Extended observation with the help of national technical means of activities associated with the reduction and limitation of strategic offensive arms. It will include placing in the open the means at missile bases subject to limitation under the treaty, bases of bombers and submarines in the places and at the time chosen by the inspecting side.[35]

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[35] Vestnik of the USSR Ministry of Foreign Affairs, No. 11, June 15, 1988, p. 25.

The exchange of data on available strategic offensive arms, which has begun between the two sides (the Soviet side immediately submitted the data on all the weapons covered by the Treaty), has become a substantial practical measure on verification of compliance with the future treaty.

The Soviet Union responded positively to the June 1989 initiative of President George Bush on verification and stability measures. After a thorough exchange of opinions on the details of that initiative, Eduard Shevardnadze and James Baker signed late in September 1989 an agreement aimed at devising such measures and formulating the principles of carrying them out. At the same time an agreement on the early notification of large-scale exercises of strategic forces was signed. The sides also considered other verification and stability measures and agreed that they would be further studied in Geneva. So, joint actions are now concentrated on the development of a reliable verification system in regard to a treaty on strategic offensive arms.

As regard ALCMs of longer range, there is an understanding that all such missiles available would be considered nuclear capable. Future non-nuclear long-range ALCMs will differ from nuclear ones.

Heavy bombers carrying long-range ALCMs with nuclear warheads should differ from other heavy bombers. The sides have agreed on the regulations on determining the type of weapons carried by heavy bombers.

At the talks in Jackson Hole the Soviet side came up with a new idea concerning its approach to ways of solving the problem of ALCMs and heavy bombers.

As for mobile ICBMs, limited areas of an agreed size will be fixed for them. The presence of a limited number of missiles and launchers and a corresponding limited number of structures designed exclusively for the launchers of mobile ICBMs will be allowed in such area.

Understanding has been reached on effecting verification measures to facilitate observation with the use of national technical means, on notifications of movement of missiles and launchers from the restricted areas and on their dispersal, etc., and on limitation, - in number and from the point of view of possible location, - of non-deployed ICBMs. This is important for ruling out an early recharging of launchers.

Considering the specifics of railway mobile launchers of ICBMs, provisions have been made for a series of additional verification measures with regard to this category of weapons.

During the talks in Wyoming the US Secretary of State declared that the US side withdrew its proposal on banning mobile ICBMs at the negotiations on strategic offensive arms, depending on the decision the US Congress would take on financing US mobile ICBMs. The Soviet side expressed satisfaction with that statement and both sides agreed it was necessary further to elaborate provisions pertaining to verification of limitations imposed on mobile ICBMs. They also reached an understanding on additional elements of a general accord on control over mobile ICBMs, elements which had been agreed upon at the summit meeting in Moscow and during the subsequent work done in Geneva.

At present, the efforts at the talks are concentrated on problems like compliance with the ABM Treaty and limitations on long-range sea-launched cruise missiles (SLCM).

It would be appropriate, perhaps, to dwell in greater detail on verification with regard to each of these problems.

As we all know, the 1972 *ABM Treaty* of unlimited duration[36], which is of key significance for ensuring strategic stability and international security, provides for both verification measures and a mechanism to help attain the goals of the treaty and fulfil its provisions.

Article XII provides for the use of national technical means of verification in a manner consistent with generally recognized principles of international law and with an obligation assumed by each Party not to interfere with the national technical means of verification.

Each of the sides assumed an obligation to refrain from deliberate concealment hampering verification of compliance with the Treaty provisions by national technical means.

To help achieve the goals and fulfil the provisions of the treaty, the sides set up the Standing Consultative Commission (SCC) which became a mechanism for the whole of the ABM Treaty, for the Interim Agreement on Certain Measures with Respect to the Limitation of Strategic Offensive Arms, signed on May 26, 1972 (SALT I)[37], and the Agreement on Measures to Reduce the Risk of Outbreak of Nuclear War Between the USA and the USSR, signed on September 30, 1971.[38]

The functions of the SCC are: to consider questions concerning compliance with the obligations assumed and related situations which may be considered ambiguous; provide on a voluntary basis such information as either party considers necessary to assure confidence in compliance with the commitments; consider questions involving unintended interference with national technical means of verification; consider possible changes in the strategic situation which have a bearing on the provisions of the Treaty (and, consequently, of the interim agreement); agree upon procedures and time limits for the destruction or dismantling of ABM systems and strategic offensive arms: consider, as appropriate, possible proposals for further increasing the viability the Treaty; consider, as appropriate, proposals for further measures to limit strategic offensive arms.

As the United States refused to observe SALT I and SALT II provisions, questions of considering the ABM Treaty and the Agreement on Measures to Reduce the Risk of Outbreak of Nuclear War Between the USA and the USSR now remain within the competence of the SCC.

During the Reykjavik Summit the Soviet side came up with a proposal to reduce by half strategic offensive arms, provided the sides do not use the right of withdrawal from the ABM

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[36] Arms Control and Disarmament Agreements, US Arms Control and Disarmament Agency, Washington D.C., 1975, pp. 133-135.

[37] Ibid., pp. 139-141.

[38] Ibid,. pp. 105-106.

Treaty for ten years and limit their work on space ABM defence to laboratory research. However, no understanding has been reached on the entire range of issues concerning nuclear and space arms.

In the long run, the sides managed to reach agreement in Washington on the formula of a future understanding:

> Taking into account the preparation of a treaty on strategic offensive arms, the leaders of the two countries also instructed their delegations in Geneva to work out an agreement that would commit the sides to observe the ABM Treaty, as signed in 1972, while conducting their research, development, and testing as required, which are permitted by the ABM Treaty, and not to withdraw from the ABM Treaty, for a specified period of time. Intensive discussions of strategic stability shall begin not later than three years before the end of the specified period, after which, in the event the sides have not agreed otherwise, each side will be free to decide its course of action. Such an agreement must have the same legal status as the treaty on strategic offensive arms, the ABM Treaty, and other similar, legally binding agreements. This agreement will be recorded in a mutually satisfactory manner. Therefore, they direct their delegations to address these issues on a priority basis.[39]

Proceeding from this formula, the sides have managed to produce a joint text (though with numerous reservations) of a protocol to the agreement on matters related to the ABM Treaty, which should contain provisions on verification and predictability aimed at ensuring confidence of the sides in compliance with the commitments they assume. The Soviet proposals on such measures envisage the following:

First, to exchange data related to the work in the ABM sphere, hold meetings of experts and make mutual visits to the testing ranges where this work is under way.

Second, there should be exchange of information to rule out doubts about compliance with the commitments assumed by the sides.

Third, there should be verification of compliance with the commitments, down to inspections in the places over which concern is displayed by the sides.

Fourth, consultations should be held to consider situations jeopardizing, in the opinion of either side, its supreme interests. During the consultations the sides could use all possible means to settle such situations on a mutually acceptable basis.

The proposed solutions could serve as a reliable guarantee that at the time when the sides start real and profound reductions of their nuclear arsenals, neither of them will have grounds for apprehensions that the other side will try covertly to tilt the strategic balance in its favour.

During the talks in Jackson Hole the Soviet side proposed a new approach to ABM and outer space issues with a view to finding a solution to this important problem. Both sides have agreed that the new approach opens the way to drafting and signing a treaty on strategic offensive arms, which may not be preceded by signing a treaty on defence and on outer space. They agreed also to give up the idea of non-withdrawal while continuing the discussion of ways

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[39] Vestnik of the USSR Ministry of Foreign Affairs, No. 10, December 25, 1987, p. 15.

of making the future Soviet-American strategic balance predictable in conditions of strategic stability so as to reduce the risk of nuclear war. It was decided that these matters would be discussed in Geneva.

Having expressed preparedness to sign and ratify the Treaty on Strategic Offensive Arms, if no understanding on the ABM issue is reached before the treaty is drafted, the Soviet Union stressed the need for both sides to observe the ABM Treaty as it was signed in 1972, preserving, naturally, the right to withdraw from the Treaty on Strategic Offensive Arms, if either party to the ABM Treaty fails to comply with it.

The Soviet Union did not, and does not, make abandonment of the SDI programme by the United States a preliminary condition for signing a treaty on 50-per cent cuts in strategic offensive arms. As it was repeatedly stressed by Mikhail Gorbachev, SDI is not a bargaining chip. The United States has the right to carry out any programme, so long as it does not contradict the ABM Treaty. But the USSR is strongly opposed to other ways of advancing the arms race, least of all in outer space, especially now that nuclear disarmament is becoming real.

Proceeding from this conviction, the Soviet Union has undertaken a series of non-standard unilateral measures to dispel the concern of the US side over compliance with the ABM Treaty, as well as measures aimed at providing information and conducting, in fact, on-site inspections.

The US concerns, it will be recalled, are centered on the construction of a radar unit in the Krasnoyarsk region. In response to that, the Americans were handed down data on the purpose and characteristics of the radar station to show that the Krasnoyarsk radar cannot be used either for warning about a missile attack or as an ABM radar.

On September 5, 1987, the Soviet side satisfied the request of a group of US Congressmen and experts to visit the site where the Krasnoyarsk radar unit was under construction near the town of Yeniseisk. They were shown the transmitting and receiving centres, including the interior with system of energy supply, a repair base, and the inclined part of the transmitting antenna. The vibrator of the transmitting module was demonstrated to them. The delegation was shown the structure of the outside engineering complex: the refrigerating centre, the pumping station and water cooling reservoirs, and a sub-station for electric power supply.

In October 1987, the American side was informed that in order to build greater confidence and end all talk about the ABM Treaty being violated by the Krasnoyarsk radar unit, the Soviet Union unilaterally introduced a one-year moratorium on all the work being done there.[40]

In order to dispel US suspicions and strengthen the regime of the ABM Treaty, the Soviet Union dismantled the radars on the Sary-Shagan test range. The two vans of those radars (Pawn Shop) were handed over to the national economy and moved to the regions of Gomel and Moscow. The third radar was destroyed together with the van.

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[40] Pravda, October 24, 1987.

As for the Flat Twin radar, in the Gomel region there are only separate elements of this type of radars, - the turning device and containers without instruments, which does not contradict the ABM Treaty either.

Besides, the Soviet Union, displaying goodwill, demonstrated the van of the Pawn Shop radar and separate elements of the Flat Twin to US representatives in December 1987 at the places of their location. Later, the Soviet side said it was prepared to destroy the radar elements of Flat Twin and Pawn Shop in the regions of Gomel and Moscow, which had been intended to be used in the economy.

In summer of 1988, the Soviet Union said it was prepared to resolve the problem caused by misunderstanding over the Krasnoyarsk radar unit. It issued a statement which said:

> If an understanding is reached on observing the ABM Treaty, as it was signed in 1972, the Soviet Union will be prepared to dismantle the equipment of the Krasnoyarsk radar unit, so that this would be verifiable and cause no doubts on the part of the United States.[41]

Until recently, no reciprocal moves have been made, nor any other practical measures have been taken by the United States to dispel the Soviet concern over the commissioning of the new US radar with a phased array at Thule (Greenland) and the construction of a similar radar in Fylingdales Moors (Great Britain).

At the talks in Wyoming the Soviet side declared that, pursuing its old goal of strengthening the regime of the ABM Treaty, it decided to dismantle the Krasnoyarsk radar station. The United States expressed satisfaction at the statement.

At the same time the Soviet Union again said it wanted to dispel its apprehensions associated with the US radar stations in Greenland and Britain. The United States promised to consider these apprehensions during consultations with its allies.

Now about the second problem, - *the setting of limits to SLCMs.*

Reliable limitation of this new and dangerous kind of weapon is necessary for making a future treaty stable and effective and guaranteeing that it would not be by-passed. The significance of this question is recognized by both sides.

Proceeding from the joint commitment, formulated already in the Washington Joint Statement, to set limits for long-range SLCMs with effective verification, the Soviet side proposed and substantiated a series of far-reaching measures in this sphere, including verification measures. It was proposed that the entire life cycle of long-range SLCMs be place under strict control.

Control would start with introducing constant monitoring of the perimeter and passage points at the facilities manufacturing such missiles, due to which each manufactured SLCM would be immediately taken into account.

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[41] Pravda, July 20, 1988.

Permanent control would be established also at specially stipulated equipping points, at which SLCMs are equipped with nuclear charges, after which they are loaded on the submarines and surface ships of agreed types. The Soviet side proposed that the number of such equipping points be limited, while the loading of SLBMs on board submarines and surface ships in other places, including in the open sea, be banned.

If by the time the treaty on strategic offensive arms enters into force submarines or surface ships of either side are already armed with long-range SLBMs, that side should present every such missile for counting them in.

The Soviet side has come out also for a wide use of national technical means of verification. It proposed that a joint experiment be conducted to spot the presence of nuclear arms on ships by using remote control equipment. As control would be carried out by these means, inspections could be conducted directly in a submarine or on board a surface ship subject to above-mentioned control, which would be done in case one of the sides displays concern. That would help avoid misunderstanding.

Inspections in general play an important part in the Soviet approach to control over long-range SLCMs. For instance, in places where either side suspects concealed deployment of these missiles, it has been proposed that inspections at short notice be conducted. This means that any warship of any of the sides would be subject to inspection on a mutual basis when necessary.

Naturally, all provisions of the treaty designed to verify the limitations imposed by it would apply to SLCMs, just as to all other types of strategic offensive arms. That would include exchange of relevant data, notifications, inspections verifying the accuracy of initial data the side would exchange as the treaty would come into force, verification of elimination procedures, and so on. Reliability of control would be ensured also by a limitation of the number of types of surfaces ships and submarines where long-range SLCMs could be placed, as it is envisaged by the Soviet proposal.

In September 1989, the Soviet Union proposed that a new approach be adopted to the SLCM issue. It suggested that the issue be solved in a broader context of naval armaments. As for the talks on nuclear space arms, the USSR asked the USA to concentrate on the verification problem and declared that, considering an establishment of a SLCM control system, these armament could be limited outside the framework of a treaty on strategic nuclear arms, by assuming appropriate mutual commitments. The USA, for its part, said it was prepared to study these ideas, though it expressed doubts that effective SLCM control was possible. It also repeated its old points of view that any discussion of naval armaments would give rise to serious problems.

In connection with the above-mentioned doubts on the part of the United States, the following considerations should be expressed here. The Soviet proposal on conducting a joint Soviet-American experiment (on a government level) on sea-based nuclear arms control was rejected by the United States. Then Soviet and American scientists decided to conduct the experiment. In this they were supported by the USSR Ministry of Defence.

That decision was carried through on July 5, 1989, on a non-governmental level in accordance with the understandings reached between the USSR Academy of Sciences and the US Natural Resources Defense Council. The experiment was conducted on the Black Sea in the area of the port of Yalta and in the presence of scientists and governmental, parliamentary and other mass media of the USSR, the USA (a group of US Congressmen was also present), the FRG, Spain, Italy, Japan and the People's Republic of China. The experiment confirmed the possibility of remote detection of the presence of nuclear arms on board submarines. We do hope this possibility will be used within the framework of a reliable verification system.

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The elaboration of understandings on a 50-per cent cut in strategic offensive arms has shown definite progress consolidating the breakthrough made by the INF Treaty. This progress, which has evidently facilitated the decision to hold the next Soviet-American summit meeting in the United States late in spring or early in summer, 1990, is of no small importance for the further fate of verification in the conditions of nuclear disarmament, just like for producing other agreements, as, for instance, a convention on banning chemical weapons, multilateral understandings on the prevention of arms race in space, reduction of armed forces and conventional arms, etc.

Verification of compliance with the INF Treaty and agreement on more far-reaching verification measures at the talks on nuclear space weapons confirm that, as the nuclear disarmament process is going on, ever higher demands would be placed on verification, and it will become increasingly profound and all-embracing, so that confidence in compliance with agreements on matters related to the key components of security would be utmostly ensured.

3. Preceding Experience of Verification of Strategic Arms Limitation. SALT I and SALT II Treaties

Two documents have been the main constraints on the strategic offensive arms race over the past fifteen years, - the Interim Agreement on Certain Measures With Respect to the Limitation of Strategic Offensive Arms (SALT I), and the Treaty on the Limitation of Strategic Offensive Arms (SALT II).[42]

The Interim Agreement between the USA and the USSR on Certain Measures With Respect to the Limitation of Strategic Offensive Arms, signed on May 26, 1972, sets limits on the number of launchers for land-based strategic missiles (at the date of signing, the USSR had 1,618 and the USA, 1,054 ICBMs), and on the number of SLBMs (920 for the USSR and 710 for the

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[42] See: Arms Control and Disarmament Agreements..., pp. 139-141, and The United Nations Disarmament Yearbook, Volume 4, 1979, pp. 427-456.

USA). No limitation was envisaged for the warheads of ballistic missiles and also strategic bombers and their armaments. The Agreement says that for the purpose of ensuring compliance with its provisions, each party, "shall use national technical means of verification at its disposal in a manner consistent with generally recognized principles of international law."

The sides agreed not to interfere with each other's national technical means of verification and not to use deliberate concealment measures which might impede verification by national technical means.

Thus, provisions were made for verification only by national technical means.

To help achieve the goals and implement the provisions of the Treaty and the Interim Agreement, a Standing Consultative Commission (SCC) was set up whose functions were outlined in connection with the ABM Treaty.

The mechanism established for ensuring compliance with the SALT I accords works fairly well. With both sides using photographic reconnaissance satellites, any attempt of concealed construction of at least one ICBM silo or a submarine with ballistic missiles on board in violation of Agreement would be immediately detected, considering the observability of such work and the long time it normally takes.

In 1977, when the term of the Agreement expired, the sides undertook, on a reciprocal basis, not to take actions inconsistent with its provisions until the completion of the SALT II talks that were under way then.

The Treaty Between the USA and the USSR on the Limitation of Strategic Arms, signed at Vienna on June 18, 1979, limited the arsenals of the sides still more. Apart from the common quantity ceilings for ICBM and SLBM launchers, the Treaty provided for sub-ceilings for multiple reentry vehicles (launchers of MIRVed ballistic missiles and heavy bombers carrying cruise missiles), and for launchers of ground-launched ICBMs with MIRVs, and it was prohibited to build new ICBM launch silos in general and launch silos for heavy missiles in particular. Strict limits were set for the number of warheads on future missile systems, on the launch-weight or throw weight of ICBMs and their size; and the testing and deployment of new ICBMs, except for "light" ones, were banned. It was not allowed to test and deploy ground- and sea-launched cruise missiles capable of a range in excess of 600 km (according to the protocol). The Treaty sets a limit on strategic offensive arms to an aggregate number not exceeding 2,400 for each side, The number of ballistic equipped with MIRVs should not exceed 1,320.

The SALT II Treaty, just like the SALT I accords, says that verification is to be exercised exclusively with the help of national technical means. However, as regards verification of observance of the limitation under the Treaty, it envisaged broader verification measures as compared with SALT I. Notions like "externally observable design features" and "functionally related observable differences" were introduced in the documents related to the SALT II Treaty. Externally observable design features made it possible to discriminate between launchers of ICBMs with MIRVs and without them, between submarines armed with MIRVs missiles and those carrying monobloc missiles. To facilitate control with the help of national technical means (NTM), over the weapons systems having similar characteristics but performing different

functions, the sides agreed that such systems should have "functionally related observable differences", making it possible to distinguish one system from another (for instance, to tell heavy bombers carrying bombs and short-range air-to-surface missiles from bombers carrying cruise missiles). A number of other provisions (for instance, regulations for registering types of armaments), directly related to verification procedures were included in the official documents of the Treaty. The SALT II Treaty envisages the using of the SCC, set up in accordance with the SALT I accords, to help achieve its objectives and implement its provisions.

The earlier concluded Soviet-American Agreement on Measures to Reduce the Risk of Outbreak of Nuclear War signed on September 30, 1971, and the Agreement on the Prevention of Incidents On and Over the High Seas, signed on May 25, 1972, introduced the practice of notification territory. The SALT II Treaty provides for a generalized and more far-reaching commitment in this field envisaging timely notification of conducting test launches of ICBMs, except for single ICBM launches within the bounds of national territory.

The Joint Statement of Principles and Basic Guidelines for Subsequent Negotiations on Limitation of Strategic Arms, signed simultaneously with the SALT II Treaty, contains the following provision: "Further limitations and reductions of strategic arms must be subject to adequate verification by national technical means, using additionally, as appropriate, cooperative measures contributing to the effectiveness of verification by national technical means." It was pointed out in the Statement that "the Parties will seek to strengthen verification and to perfect the operation of the Standing Consultative Commission in order to promote assurance of compliance with the obligations assumed by the Parties."[43]

Compliance with the SALT I and SALT II Treaties yielded practical results, leading to tangible, though relatively little, destruction of strategic offensive arms, which is illustrated in the table below.[44]

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[43] The Struggle of the USSR Against Nuclear Danger and the Arms Race, for Nuclear Disarmament, Moscow, 1987, p. 367 (in Russian).

[44] Pravda, March 17, 1987.

DATA

ON DISMANTLING STRATEGIC MISSILE CARRIERS OF THE USSR AND THE USA IN ACCORDANCE WITH THE SALT I AND SALT II TREATIES

	USSR	USA
ICBM launchers	293	37
Including:		
In accordance with SALT I	209	37
In accordance with SALT II	84	-
SLBM launchers	287	176
Heavy bombers	36	77
Total	616	290

Early in 1980, the United States refused to ratify the SALT II Treaty. However, both sides exchanged statements on displaying mutual restraint with regard to observing the mains provisions of that Treaty.

In May 1986, the United States issued a statement, saying that it intended to base its decisions with regard to the structure of its strategic forces on the evaluations of the substance and scope of the alleged threat coming from the Soviet strategic forces, and not on the standards underlying the SALT structure.

In keeping with that statement, the United States made the 131st heavy bomber B-52 equipped with long-range ALCMs part of its combat forces, thereby practically exceeding one of the key SALT II subceilings, - the 1,320 limit for the number of ICBMs, SLBMs and heavy bombers equipped with MIRVs. At present, 160 such heavy bombers are made capable of carrying ALCMs.

The Soviet side announced its decision to refrain, so far, from withdrawing from the SALT I and SALT II limitations. The official data on the alignment of forces as of January 1, 1988, which have been published by the Soviet Union, show that the USSR does not exceed all the main ceilings under the SALT I Interim Agreement and the SALT II Treaty, namely: the

ceilings for launchers of MIRVed ICBMs and SLBMs and heavy bombers with cruise missiles (1,320); for launchers of ballistic missiles with MIRVs (1,200) and for MIRVed ICBM (820).[45]

This Soviet line with regard to SALT I and SALT II is, perhaps, a convincing answer to the campaign around "Soviet violations" of these treaties. It is a unilateral Soviet action for the benefit of disarmament.

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It would be unjustifiable to forget that it was largely due to SALT I and SALT II that, in keeping with an understanding reached between the sides, the Soviet-American talks on the limitation and reduction of strategic arms began on June 29, 1982 (interrupted late in 1983).

In March 1985, the talks on nuclear and space arms began. At the talks the INF Treaty was worked out due to the display of new thinking and joint work on drafting a treaty on 50-per cent cuts in strategic offensive arms and on a separate agreement in compliance with the ABM Treaty, as signed in 1972. In the understandings on monitoring the elimination of intermediate- and shorter-range missiles and the reduction of strategic offensive arms, in what regards the use of national technical means, the progress of implementing the SALT I and SALT II Treaties has been in some cases taken into account. Thus the joint Soviet-American statement on the outcome of the Washington Summit included, among anything else, a provision, - a most important one from the point of view of verification, - that the future treaty is supposed to ban telemetry encryption and allow for "full access to all telemetric information broad-cast during missile flight". The experiences gained while implementing the SALT I and SALT II Treaties thus helps to promote the nuclear disarmament process.

4. Verifying Cessation of Nuclear Arms Testing. The Moscow 1963 Treaty. The Soviet-American 1974 and 1976 Threshold Treaties

The imperative problem of ending nuclear tests has become even more urgent after the INF Treaty entered into force, and also in the context of the contemplated mutual reduction of strategic offensive arms.

Way back in 1955, when the Soviet Union had conducted far less nuclear arms tests than the USA had, the USSR came out for a general and complete end to the testing of these weapons, and has invariably insisted on that ever since, seeing in it a practical way of restraining the nuclear arms race, subsequently reducing nuclear arsenals, and ultimately eliminating them altogether.

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[45] Pravda, February 8, 1988.

In March 1958, the Soviet Union took a unilateral decision to suspend nuclear arms testing and appealed to other nuclear powers to follow suit, so that the testing of these weapons would end everywhere and for all time.[46]

Working to get the talks on that issue going, the Soviet government declared it was ready to study, on the level of experts, technical matters related with verification of compliance with and agreement on ending the testing of atomic and hydrogen weapons.[47]

Scientific experts of eight countries (the USSR, Poland, Czechoslovakia, Romania, the USA, Britain, France and Canada) held a meeting from July 1 to August 21, 1958, in Geneva. The report to their governments, unanimously approved by the experts, described various methods of detecting nuclear explosions (seismic, radiation, acoustic, registering radio signals, etc.), characterized the effectiveness of these methods and offered recommendations on using them for verification. The report contained recommendations on establishing control posts; listed the instruments to be installed at those posts; mentioned the required number of such posts (of 170 to 18 posts, 37 would be in Asia, 24 in North America, 6 in Europe, 60 on various islands, 10 on ships cruising oceans, and so on); and described the main specifics of the verification system as a whole.

In keeping with a proposal made by the Soviet experts, it was pointed out that the reliability of the verification system would be constantly increasing as more knowledge on natural phenomena would be accumulated, measuring equipment would be improved, and the sensitivity of instruments would be increasing.

The experts included in the total verification system on-site inspection of phenomena suspected to be a nuclear explosion. On that matter the report offered the following recommendation: On discovering by control posts a phenomenon that can be identified by an international inspection body and suspected to be a nuclear explosion, an international verification body may send to that place a group of inspectors to make sure if there was a nuclear blast or not. The group would be provided with equipment and instruments required by its assignment in each particular case.[48]

The meeting, which proved scientifically and technically that there were no obstacles in the way to concluding an agreement on ending nuclear weapon tests, played its positive role: on October 31, 1958, *the talks among the USSR, the USA and Britain on banning nuclear weapon tests* began in Geneva. Already on November 29 that year the Soviet Union submitted a draft agreement on ending such tests. In that draft it proposed, in particular, that a control body having a network of control posts set up with due account of the recommendations made by the Geneva meeting of experts, should be established to verify compliance with the agreement. The draft envisaged that verification provisions would be formulated in detail in a protocol to the agreement that would enter into force simultaneously with the agreement.[49] The Soviet delegation also submitted for the consideration of its partners in the talks the main principles

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46 Izvestia, April 1, 1958.
47 Pravda, May 12, 1958.
48 Documents of the meeting of experts.
49 Izvestia, December 4, 1958.

governing the procedure of establishing an organization that would verify compliance with the treaty on ending nuclear weapon tests.

On July 26, 1960, the Soviet Union proposed that three inspections a year be allowed in the territory of each of the original parties to the Treaty, that is, the USSR, the USA and Britain. Within the limits of this quota, inspection trips may be made without hindrance at any time, if so requested by the other side. The only reason for sending an inspection team should be the readings of instruments indicating a possible concealed nuclear explosion, However, the Soviet proposal was rejected, and the USA and the United Kingdom kept insisting on having 20 inspections annually.[50]

The practical experience gained by that time showed that all nuclear explosions, including underground ones, could be detected and identified by national means of verification. Thus, a nuclear explosion "Gnome", conducted by the United States in December 1961 specially to confirm the possibility of seismic concealment of explosions, was registered by seismic instruments in many countries. Early in 1962, the Soviet Union conducted the first underground nuclear explosion and did not announce it. Nonetheless, it was registered by the national means of verification of the United States, which was reported by the American Atomic Energy Commission.[51]

During the talks, which opened in March 1962 under the auspices of the Geneva Committee on Disarmament, the Soviet delegation submitted a proposal in December that year (which had been first formulated in September at the Pugwash Conference of Scientists in London) on the location in the territory of nuclear powers of automatic seismic stations for detecting underground nuclear explosions ("black boxes"). The delegation declared that the USSR was prepared to have three such stations in its territory (in the Far Eastern, Altai and Central Asian seismic zones), and the foreign experts would be allowed to place equipment and take the readings of the instruments at these stations.

The Soviet Union made new attempts to achieve progress in arriving at a decision on ending nuclear tests at the close of 1962 and early in 1963, when it proposed that, parallel with the establishment of automatic seismic stations in the USSR, the USA and Britain, - there in each country,- the sides would also agree on conducting two or three inspections annually on the basis of reciprocity in the regions with high seismic activity.

But even that compromise proposal was turned down. The USA and the United Kingdom kept insisting on increasing the number of automatic seismic stations to seven, and international inspectors would be allowed to visit each of them eight times a year, while the United Kingdom would be allowed not to have such a station in its territory. They insisted also on a greater number of on-site inspections (seven inspections with the right to inspect each time on an area of 500 sq km).[52]

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[50] R. Timerbayev, Problems of Verification, General Editorial Board for Foreign Publications, Nauka Publishers, Moscow, 1984, p. 71.

[51] See: V.V. Shustov, The Soviet Union and the Problem of Nuclear Arms Test Reduction, Moscow, 1977, p. 82 (in Russian).

[52] Doc. of the Committee on Disarmament, ENDC/78.

In that situation the Soviet government declared on July 2, 1963, that, so long as the Western powers obstructed the conclusion of an agreement banning all nuclear tests, it was prepared to sign an agreement on banning such tests in the atmosphere, in outer space and under water, It was taken into account that, having proposed a partial test ban already in August 1962, the USA and the United Kingdom had recognized that no inspection would be required to verify compliance with the ban. That ensured a breakthrough in concluding an agreement on prohibiting tests in the three environments.

The PTBT treaty banning nuclear-weapon tests in the three environment,[53] which was signed by the Soviet Union, the United States and Britain in Moscow on August 5, 1963, and was open for signing by other countries, prohibited test explosions of nuclear weapons, or any other nuclear explosions in the atmosphere, in outer space and under water, as well as nuclear explosions in any other environment (that is, also underground), "if such explosion causes radioactive debris to be present outside the territorial limits of the State under whose jurisdiction or control such explosion is conducted".

The Treaty contains no provisions for international control, nor does it mention the use by the signatories of the national technical means of verification available to them.

The Treaty, which is in force to this day, has been joined by a "qualified majority" of states in the world. However, it has not been joined by France and China, though France actually stopped nuclear testing in the atmosphere in 1975 and China did so after 1980.

At last, atmospheric contamination by radioactive debris was stopped. It is now becoming increasingly clear that, if the tests had not been ended in 1963, the effect for the environment of the Earth could be tragic.

Soon after the entry into force of the Moscow Treaty, which registered the desire of its signatories to "achieve the discontinuance of all test explosions of nuclear weapons" and their determination "to continue negotiations to this end", the Soviet government came out for concluding without delay an agreement on ending nuclear tests under ground, based on the use of national technical means of verification.[54]

Meanwhile, many non-aligned countries, which were alarmed to see that the continuing tests led to the intensification of the nuclear arms race, joined the practical discussion of problems related to ending nuclear tests and the active search for solving the problem.

Late in 1965, the Swedish delegation at the Committee on Disarmament proposed the setting up of a so-called "detection club" which would help verify compliance with the commitments on ending underground tests of nuclear arms. The Swedish plan provided for constant and well-organized international exchange of data on seismic phenomena registered by national seismic stations. The states could voluntarily send the data obtained at their national stations to one international centre for analysis and comparison. The purpose of the "detection

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[53] Status of Multilateral Arms Regulation and Disarmament Agreements, United Nations, New York, 1988, pp. 20-22.

[54] Doc. of the Committee on Disarmament, ENDC/128.

club" was to determine by seismic recordings if a concealed underground nuclear explosion took place.[55]

On August 25, 1966, the Committee on Disarmament announced that the USSR was prepared to consider positively the question of international cooperation in the exchange of seismic data, if a relevant proposal would facilitate the conclusion of a treaty banning underground tests of nuclear arms. The Soviet side pointed out that the states taking part in the "detection club" should not, of course, have any obligations on international verification and inspection.[56]

The United States said it was ready to take part in an international exchange of seismic data, stressing, however, that such exchange did not mean that it revoked its insistence on international inspections.[57] So, the Swedish proposal on the "detection club" was not implemented for the lack of a consensus.

In the conditions when the discussion of the prohibition of all nuclear weapon tests showed no progress for years, the Soviet Union, declared that it was ready to agree, as the first move, to a bilateral partial solution of the problem of underground nuclear tests, having stressed, however, that it definitely preferred an all-embracing solution.

The talks between the USSR and the USA, held in June and July 1974 in Moscow, led to the drafting of a treaty banning most powerful underground tests of nuclear arms.

The bilateral Soviet-American Treaty on the Limitation of Underground Nuclear Weapon Test, signed on July 3, 1974, in Moscow[58] contains the parties' obligation to prohibit, to prevent and not to carry out any underground nuclear weapon tests with a yield exceeding 150 kilotons.

In order to provide assurance of compliance with the Treaty, each party would use national technical means of verification at its disposal in a manner consistent with the generally recognized principles of international law. Both countries undertook not to interfere with each other's national technical means of verification.

The Treaty contains a provision on consultations between the sides in the process of mutual verification of compliance with the Treaty, should questions or doubts concerning the actions of the other side arise. It is envisaged that to promote the objectives and implementation of the provisions of the Treaty, the parties would, as necessary, consult each other, make inquiries and furnish information in response to such inquiries.

The Protocol to the Treaty is regarded as its integral part. It regulates all questions pertaining to mutual exchange of information on test sites and on nuclear weapon tests conducted by both sides.

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55 Doc. of the Committee on Disarmament, ENDC/154.
56 ENDC/PV. 286, P. 9.
57 Ibid., pp. 28-30.
58 Arms Control ..., pp. 155-158.

The provisions of the 1974 Treaty do not extend to underground nuclear explosions for peaceful purposes. Such explosions, the Treaty says, will be governed by an agreement which is to be negotiated and concluded by the parties at the earliest possible time.

As a result of intensive but constructive talks held in Moscow from October 1974 to Max 1976, *the Soviet-American Treaty on Underground Nuclear Explosions for Peaceful Purposes (and a protocol thereto,)* were signed on May 28, 1976, simultaneously in Moscow and Washington.[59]

Each party, subject to the obligations assumed under that Treaty and other international agreements, reserved the right to carry out nuclear explosions for peaceful purposes at any place under its jurisdiction or control outside the geographic boundaries of test sites; to carry out, participate or assist in conducting explosions in the territory of another state at the request of such other state. The sides agreed to set limits to carrying out underground nuclear explosion for peaceful purposes. So they undertook to refrain from:

- any individual nuclear explosions having a yield exceeding 150 kilotons. This provision is of great significance because in keeping with it the limit to the yield of a nuclear explosion for peaceful purposes is not made dependent on the limit to the yield of a test explosion of a nuclear weapon;

- group explosions having an aggregate yield exceeding 1.5 megatons;

- any explosions which do not carry out a peaceful application. Any tests carried out for the development of nuclear explosive devices are not regarded as peaceful application, and any such tests should be conducted within the boundaries of nuclear weapon test sites;

- any explosion except in compliance with the provisions of the Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Under Water, the Treaty on the Non-Proliferation of Nuclear Weapons, and other relevant international agreements.

In view of the specific subject of the Treaty, compliance with it can be checked through a fairly complex, very detailed but streamlined verification system. The main verification provisions are defined in the Treaty, while the relevant procedures are laid down in the Protocol to it, which is an integral part of the Treaty.

To promote the objectives and implementation of the provisions of the Treaty, it was decided to set up a Joint Consultative Commission (JCC), within the framework of which the sides would consult each other, make inquiries and furnish information in response to such inquiries; consider questions concerning compliance with the obligations assumed and related situations which may be considered ambiguous; consider questions involving unintended interference with the means of assuring compliance with the provisions of the Treaty; consider

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[59] The text of the treaty and the protocol to it see in: The United Nations Disarmament Yearbook, Volume 1, 1976, pp. 256-270.

changes in technology or other new circumstances which have a bearing on the provisions of the Treaty; and consider possible ammendments to the provisions governing underground nuclear explosions for peaceful purposes. Besides, the JCC is to facilitate cooperation between the two sides in various areas related to carrying out underground nuclear explosions for peaceful purposes.

Because of the position held by the American side, the 1974-1976 treaties were not ratified until recently. Meanwhile the understanding reached between the sides on not exceeding the yield threshold set by the Treaty is still in force.

The new situation called for the need to advance resolutely towards the chief goal in the area of nuclear tests, - that of complete and general prohibition of such tests.

The original draft *International Treaty on Complete and General Prohibition of Nuclear Weapon Tests* was submitted by the Soviet Union to the UN General Assembly in September 1975.[60]

As regards verification, the Soviet draft was based on the use of national technical means of verification, on international exchange of seismic data and, when necessary, holding consultations among the signatories. It also provided for the right of the parties to the Treaty to lodge a complaint against a violator of the Treaty to the Security Council.

However, the Soviet proposal was not backed by other nuclear powers, and the talks on signing the treaty did not start then, though the General Assembly did pass a resolution urging all states possessing nuclear arms to begin the talks with a view to reaching an understanding on complete and general prohibition of nuclear weapon tests.[61]

Bilateral Soviet-American consultations were held in Washington on June 13 to 16, 1977, and on July 13 that year *the tripartite negotiations in which, apart from the USSR and the USA, Britain also took part*, opened in Geneva.

At first the tripartite negotiations proved most productive. The sides agreed on the main obligation of each participant: to ban any test explosions of nuclear weapons in any place under its jurisdiction or control and in any environment. They agreed that the treaty should be accompanied by a protocol on nuclear explosions for peaceful purposes, which would become part and parcel of the treaty. In keeping with the protocol, the participants would impose a moratorium on nuclear explosions for peaceful purposes and would so refrain from carrying out such explosions until a procedure for them would be worked out. After the entry into force of the treaty its signatories would continue to consider the procedure of conducting nuclear explosions for peaceful purposes, including an aspect of excluding military benefits. A number of other important provisions of a draft treaty on complete and general prohibition of nuclear weapon tests were formulated.

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[60] Pravda, September 29, 1975.

[61] A/31/89.

The participants in the tripartite talks achieved a considerable degree of agreement on what concerned verification of compliance with the treaty. They agreed that for the purposes of verification they would use the national technical means at their disposal in keeping with the generally recognized principles of international law. Each of the participants undertook not to interfere with such means of verification.

Furthermore, they reached an understanding that an international exchange of seismic data would be established with regard to the treaty on the basis of recommendations prepared under the aegis of the Committee on Disarmament by the ad hoc Working Group of Scientific Experts to Detect and Identify Seismic Events, set up in 1976 in response to Sweden's proposal.

In 1978, the ad hoc Group of Scientific Experts with active support of their Soviet counterparts prepared a report containing recommendations on establishing a global network of seismic stations.[62]

The negotiators agreed that each party to the future treaty would have the right to join the international exchange of seismic data, present information obtained by their seismic stations in its territory and receive all seismic data provided through international exchange. Seismic data would be transmitted through the WMO global telecommunication network or through other agreed communication channels. International seismic data centres would be established in agreed places, with due regard for desirable geographic location.

The USSR, the USA and the United Kingdom agreed that a Committee of Experts be established to consider matters related to international exchange of seismic data and that all the parties to the treaty would have the right to appoint representatives for taking part in the committee's work. The functions of the Committee of Experts were formulated as well. It was to devise in detail measures on the establishment and functioning of international exchange, using the recommendations of the ad hoc Group of Scientific Experts at the Committee on Disarmament.

The participants in the tripartite negotiations agreed also to other measures promoting confidence in compliance with the future treaty. The draft treaty included a provision on direct consultations, exchange of inquiries and answers among the participants for the purpose of solving problems that may arise in connection with observance of the treaty.

In case a party to the treaty becomes suspicious of the nature of a phenomenon occurring in the territory of any other signatory, it may request on-site inspection to find out whether the phenomena was a nuclear explosion or not. The party expressing suspicions would provide grounds for its inquiry, including provision of relevant data, and the party receiving the request and being aware of the importance of confidence that the obligations under the treaty are duly observed, would announce if it would be ready to accept inspection. If it is not willing to accept inspection in its territory, it should give reasons for its objection.

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[62] Doc. of the Committee on Disarmament, CCD/558 and Add. 1.

In keeping with that understanding, the negotiating parties pointed out in their joint report submitted to the Committee on Disarmament on July 30, 1980[63], that:

> Tripartite agreement on these general conditions with regard to on-site inspections represents an important achievement by the negotiating parties in resolving issues regarding verification of compliance of the Treaty.

They stated also that:

> The verification measures being negotiated, - particularly the provisions regarding the International Exchange of Seismic Data, the Committee of Experts and on-site inspection, - break significant new ground in international arms limitation efforts and will give all the treaty parties the opportunity to participate in a substantial and constructive way in the process of verifying compliance with the Treaty.

At the initial stage of the tripartite negotiations it was agreed that along with national technical means of verification, international exchange of seismic data, consultations in cases of suspicious phenomena, and on-site inspections on a voluntary basis, the treaty would also contain a provision allowing any two or more parties, in view of their particular interest or special circumstances, to arrange for additional measures facilitating verification of compliance with the treaty. So, the USSR, the USA and Britain decided to work out such additional measures.

In joint report it was explained that the document on these additional measures would determine, in greater detail than in the multilateral treaty, the procedures for on-site inspections and would include a list of rights and functions of the personnel carrying out verification. It would contain also a description of the role to be played by the side subject to inspection. In other words, that implied that the three states would reach understanding on the procedure of on-site inspection.

Besides, the joint report pointed out that the three participants were negotiating an exchange of additional seismic data. That was associated also with the installation and use by the participants of advanced national seismic stations (NSS) with agreed characteristics. It was admitted further in the report that, despite considerable achievements, there were major areas where considerable work was yet to be done.[64]

But soon the United States, referring to the need to receive additional seismic data, proposed that national seismic stations be established in the USSR and the USA, ten stations in each country, fitted out with improved equipment based on agreed characteristics. Besides, it was proposed that foreign personnel would take part in installing and servicing that equipment. The Soviet Union did not see the need for such an additional verification measure, considering that the verification provisions that had already been agreed upon were quite enough for ensuring confidence in the observance of the treaty. Nonetheless, wishing to reach commonly acceptable agreement on all aspects of the treaty and to expedite rapid progress of the negotiations, it expressed preparedness to regard the US proposal positively, if all the three participants in the talks would be placed in equal conditions and the same number of national seismic stations (ten)

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[63] Doc. of the Committee on Disarmament, CD/130.

[64] Ibidem.

would be placed on British territories as well, including those where nuclear weapons were tested.

The USA and the United Kingdom rejected that Soviet proposal, offering a "concession" to set up only one NSS in the territory of England proper, where one can hardly imagine conducting nuclear explosions.

As a result, the negotiations came to a standstill, and in November 1980, the American side broke them off altogether.

In these conditions the Geneva Committee on Disarmament set up in 1982 a special working group to consider questions concerning a treaty on complete prohibition of nuclear tests, including verification.

On October 1, 1982, in order to speed up the solution of this urgent international problem, the USSR submitted to the 37th Session of the UN General Assembly the main provisions of the Treaty on Complete and General Prohibition of Nuclear Weapon Tests, which contained new proposals also on verification, including on-site inspections.[65]

In the statement made by Mikhail Gorbachev on January 15, 1986, the objective of ending nuclear tests was presented as a top priority measures which, if carried out, would be a practical step towards the elimination of nuclear arms.

Seeking to stimulate the solution of this problem by setting an example, the Soviet Union declared a unilateral moratorium on all nuclear explosions and adhered to it for more than 18 months, - from August 6, 1985, to February 26, 1987. The Soviet Union declared its readiness to accept most large-scale and effective measures on verification, including international on-site inspections. Though the United States did not make a reciprocal move, going ahead with its programme of nuclear tests and carried out 26 explosions within that period, the moratorium added a new dimension to the problem of banning tests and stimulated the bilateral and multilateral efforts in the context of new political thinking, including the verification sphere.

Cooperation along non-governmental lines began on the basis of the agreement signed between the USSR Academy of Sciences and the US Natural Resources Defense Council on May 28, 1985, and then prolonged on June 25, 1987. Its results, including the experiment on the Semipalatinsk test site, have shown clearly enough that the Soviet Union and the United Sates have sufficient means of seismic verification of compliance with and agreement banning nuclear tests.

The constructive "intervention" of scientists has again yielded tangible results. In July 1986, Soviet-American talks began on Soviet initiative, now on the inter-state level, to set the stage for full-scale talks on ending nuclear tests.

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[65] A/Res/243 (XXVII).

As the United States was stubbornly opposed to an immediate ban on all nuclear tests, the proposal on stage-by-stage advancement to complete cessation of testing, put forward by the Soviet side in Reykjavik, served as the basis for agreement on this issue. That proposal was accepted and, as a result of that, a joint *Soviet-American statement on starting full-scale negotiations on this problem* until December 1, 1987, was agreed on during the visit by the USSR Minister of Foreign Affairs to Washington on September 15-17 year.[66]

During the negotiations, whose first round took place in Geneva on November 9-20, 1987, the sides wasted no time providing the basis for accomplishing the first task of devising improved verification measures which would make it possible to ratify the 1974 Soviet-American Threshold Test Ban Treaty and the 1976 Peaceful Nuclear Explosions Treaty and then go over to reaching agreement on further, more substantial limitations of nuclear tests on the way to the ultimate goal, - complete cessation of nuclear tests as part of an effective disarmament process.

To elaborate improved verification measures for the 1974 and the 1976 Soviet-American Treaties, the sides decided to carry out a joint verification experiment at each other's test sites. The main purpose of the experiment is to test various verification measures in practice and, on that basis, to decide which measures and methods of verification would be used to the extent they are applicable under the agreements on further limiting nuclear tests which may be signed in future.

To prepare and conduct the Joint Verification Experiment (JVE), the sides exchanged visits in January 1988 to each other's test sites, - one in Semipalatinsk, USSR, and the other in Nevada, USA. After that the attention of the negotiations was concentrated on drafting an agreement on the terms of conducting the joint experiment. The delegations began a debate on the content of the documents which are to complement the 1974 and the 1976 Treaties.

The understanding on conducting a joint verification experiment was confirmed in the statement by the USSR Minister of Foreign Affairs and the US Secretary of State on December 9, 1987, during the Washington summit.

The drafting of the *agreement on the JVE*[67] was completed during the summit meeting in Moscow. That document and its integral part, the Supplement, designed to assure effective implementation of the agreement itself, were signed on May 31, 1988, by the USSR Minister of Foreign Affairs and the US Secretary of State. The agreement provided for carrying out, for the purpose of yield measurement, two nuclear explosions with a yield of 100-150 kilotons, - one at the Nevada test site, on August 17, 1988, and the other at the Semipalatinsk test site, on September 14, 1988.

The Agreement regulates in specific terms the order of preparing and conducting a joint experiment and the procedure of employing the methods (suggested by the sides), of monitoring the measurement of the yield. The Soviet side gives priority to seismic methods of verification, while the American side prefers hydro-dynamic methods, particularly the one named CORTEX. The results of the experiment should then be considered by both sides with a view to finding a

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[66] Vestnik of the USSR Ministry of Foreign Affairs, No. 5, October 10, 1987, p. 20.

[67] Vestnik of the USSR Ministry of Foreign Affairs, No. 13, July 15, 1988, pp. 18-19.

mutually acceptable combination of the above-mentioned methods of verifying compliance with the 1974 Threshold Test Ban Treaty.

In view of this, the sides should draft an additional protocol to the 1974 Treaty. Therefore they exchanged the texts of their draft protocols. They have reached an understanding that the work to agree the additional protocol to the 1974 Treaty will be completed when the Joint Verification Experiment is over and in accordance with it's results.

The Soviet Union and the United States also submitted their draft protocols to the 1976 Peaceful Nuclear Explosions Treaty. The Soviet side proposed that all nuclear explosions for peaceful purpose be monitored, and it preferred not to produce a new document but to revise the available protocol to the Treaty. Coordination of such a revised protocol would not be made dependent on JVE results and could be completed before the experiment.

By September 1989, the Soviet and American delegations agreed on the text of an ad referendum protocol on verification to be attached to the 1976 Treaty. An understanding was reached on including hydro-dynamic and seismic methods of verification and also on-site inspections in the protocol on verification to the 1974 Treaty; as well as on the levels of the explosion yield above which these measurements would be used. In order to obtain a statistically meaningful amount of information to improve the national technical means of both sides, each of them would guarantee the other side the right to measure on the spot, by the hydro-dynamic method, the explosion power of at least two testings a year during the first five years after the ratification of the treaty. After the five years, each side would guarantee one such hydro-dynamic measurement a year unless both sides would not decide otherwise. These understandings would provide a framework for signing a protocol on verification, thus completing the process started fifteen years ago. The delegation were instructed to continue the intensive work to solve all the remaining problems, so that the two important documents could be submitted for ratification as soon as possible. Now the road is open for their coming into effect.

Being firmly in favour of a cardinal solution, - immediate and all-embracing prohibition of nuclear tests, - the Soviet Union is aware that such a solution can be carried out fully only on multilateral basis, with all the nuclear powers taking part. But the USSR does not hold an all-or-nothing-at-all position. The search for a gradual solution of this most important problem, stage by stage, at the talks with the USA is not an end in itself for the USSR but an integral part of the efforts to use every opportunity to speed up progress towards signing a treaty on general and complete prohibition of nuclear weapon tests. The elaboration of such a agreement is a priority goal of the Geneva Conference on Disarmament.

In the summer of 1987, the Soviet Union together with other Socialist countries submitted to the Conference on Disarmament the "Main Provisions of a Treaty on Complete and General Prohibition of Nuclear Weapon Tests".[68] That was an entirely new document unifying the positive achievements of many states that worked on solving this urgent problem of disarmament. It contains, in particular, provisions on a large-scale verification system, including mandatory on-site inspections.

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[68] Doc. of the Conference on Disarmament, CD/756.

The proposals made by the leaders of Argentina, Greece, India, Mexico, Tanzania, and Sweden are of great importance for internationalizing the efforts to prohibit nuclear tests. The messages sent by Mikhail Gorbachev to the leaders of the Group of Six, dated March 14 and August 24, 1986, and also June 12 and October 29, 1987, express the USSR's readiness to establish practical cooperation with these countries in setting up an international system of seismic verification. The Soviet Union expressed also its preparedness to use the assistance of the Group of Six which offered to organize a meeting of experts of the six countries and their counterparts from the USSR and the USA to solve verification problems. It agreed to use the services of the seismic stations of these countries, which in this case would act as arbitrators. The proposals made by the Group of Six, the socialist countries and a number of Western states give the Conference on Disarmament a sound basis for starting to work in this major area, And if for some reason it is hard immediately to start drafting a treaty on a complete prohibition of tests, the USSR is prepared, again, acting stage by stage, to begin with considering the verification aspect.

To overcome the difficulties in banning nuclear tests, the USSR proposed on August 6, 1987, to set up at the Conference on Disarmament a group of experts which could prepare scientifically grounded recommendations on the structure of verification for any possible agreement on not conducting nuclear weapon tests. Besides, the Soviet Union proposed the establishment of an international system of monitoring radiation security on a global scale with the use of space communication lines.

After the Soviet Union announced in 1986 its preparedness of exchange level 2 seismic data, the work of the ad hoc group of seismologists at the Conference on Disarmament showed considerable progress. That group conducts preparations for carrying out in 1988 a USSR-proposed international experiment on the exchange of these data.

Nonetheless, despite these and other efforts, concrete negotiations at the Conference on Disarmament on banning tests do not start because of the opposition on the part of the USA and the countries that support it.

In this situation, in the opinion of the USSR, it would be useful, while continuing to deepen the inter-complementary bilateral and multilateral process of reaching agreement, to go back to the idea of a moratorium. The USSR is ready, on a reciprocal basis together with the United States, again to impose a moratorium.

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The cessation and prohibition of nuclear tests are, perhaps, an area of struggle for disarmament where the sides, having started the dialogue with the least delay, have more than once come close to a global solution and each time departed from it because verification problems were artificially complicated. At the same time, reviewing the situation of the late 1960s and the 1970s, which was favourable for reaching agreement, and looking at it from the present-say positions, we have to state that, apart from the main factor, - the unwillingness of our

partners in the talks to come to agreement, - the USSR's unpreparedness to act with greater openness, too, played its part in the failure to break the deadlock then.

Today, one can only suppose what would be if at that time both sides displayed more flexibility and agreed, say, on 11 or 12 inspections a year, meeting each other halfway. Nuclear tests in the atmosphere, in space and under water would have been banned earlier, and the way to perfecting nuclear arms would be blocked. As for verification, parallel with joint perfection of national technical means, we all would have accumulated a wealth of experience in conducting international inspections, and their number would have exceeded 300 by now. One can easily imagine what significance this would have for the entire disarmament process.

As we see it, the partial breakthroughs and the present course of events in this sphere demonstrate beyond doubt the vast potential of political goodwill in the joint efforts of governments, scientists and public opinion. Scientists have a big role to play not only in attracting attention to the urgent need for a treaty on complete and all-embracing prohibition of nuclear tests, but also in proving that it is really possible to conclude it and to verify compliance with it. As the scientific and technological revolution goes on, making the world today even more interdependent and integral, the significance of the internationalization of efforts to ban nuclear tests in all sphere and for all time keeps growing, stimulating the advancement towards a radical solution of the problem. Now that the verification issue has ceased to be a stumbling bloc, such a solution is quite feasible.

5. Safeguarding the Non-Proliferation of Nuclear Weapons.The Non-Proliferation Treaty. Monitoring Nuclear Transfers. Nuclear-Free Zones

The verification of non-proliferation of nuclear weapons occupies a special place among the problems involved in monitoring the limitation of these weapons. The solution of this problem in all its aspect, - political, legal, organizational or technical, - has been exigently tested by the practice enjoying broad international recognition.

The Soviet Union was one of the parties sponsoring the elaboration of the *Treaty on the Non-Proliferation of Nuclear Weapons*, which was opened for signing on March 5, 1970.[69] Together with the governments of the USA and Great Britain, the Soviet government is a depositary of this international legal instrument which is at present the most comprehensive document an arms limitation.

The Treaty stipulates the following basic obligations:

- for the nuclear-weapons states - *a.* not to transfer nuclear weapons and any other nuclear explosive devices to anyone and *b.* not to assist, encourage or induce any

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[69] Status of Multilateral ..., pp. 71-76.

non-nuclear state to manufacture or otherwise acquire nuclear weapons or other nuclear explosive devices;

- for the non-nuclear-weapon states - *a.* not to accept the transfer of any nuclear weapons or other nuclear explosive devices from anyone and *b.* to refrain from producing or otherwise acquiring nuclear weapons or other nuclear explosive devices, and not to seek or receive any assistance in the manufacture of nuclear weapons or other nuclear explosive devices.

The system of reciprocal obligations required from each group of countries a conscientious choice in favour of reasonable restraint and mutual, albeit different in the amount, surrender of a part of their sovereign rights in favour of a mutually-acceptable accord on the collective responsibility for the non-proliferation of nuclear weapons. Now all parties to the Treaty must thoroughly evaluate, in political terms, their strategic interests and concepts and the task of ensuring security, all the more so since two nuclear powers, France and China, have not taken part int the accord.

The Treaty embodies a balance of interests which first of all reflects the awareness of the universal menace linked with the proliferation of nuclear weapons and the urgent need for preventing the spread of these weapons threatening to over-strain the entire structure of international relations and increase the number of critical situations, incidents and fatal mishaps. The establishment of this balance of interests is the outcome of a unique display of high responsibility and political realism by both nuclear and non-nuclear states.

The renunciation of the transfer of nuclear weapons to anyone and the refusal to render assistance to any non-nuclear states in their production or acquisition directly affected the relations of the Soviet Union, the United States and Great Britain with their allies and friendly nations. It is important also that the articles providing for the prevention of a "horizontal" proliferation of nuclear weapons were supplemented with provisions on the prevention of their "vertical" proliferation, i.e. the nuclear arms race. The preamble to the Treaty stipulates the determination of its participants to spare no effort to prohibit all nuclear tests, to help terminate the manufacture of nuclear arms, bring about the destruction of all their stockpiles and the exclusion of nuclear weapons and the means of their delivery from the national arsenals in accordance with a treaty on general and complete disarmament under strict and efficient international control. The importance of this obligation is obvious particularly today, when it began to be implemented in the Soviet-American component.

In June, 1986, just before the Treaty was signed, the UN Security Council, at the initiative of the Soviet Union, the United States and Great Britain, passed resolution 255 approving the statement made by these countries on rendering assistance under the UN Charter to any non-nuclear state in the event of an aggression against it with the use of nuclear weapons or a threat of using them.[70] The statement by the three powers and the Security Council resolution, together with the non-proliferation treaty itself, - which is designed for providing security for all countries, - are a major element guaranteeing security to non-nuclear states. In international

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[70] UN Doc. S/RES/2373 (XXII).

practice these documents are known as "positive guarantees", for they imply an obligation to take measures in favour of a state that has suffered, and not an obligation to refrain from definite actions, as to refrain from using nuclear arms against a non-nuclear state (the latter obligation has been termed "negative guarantees". It is being currently elaborated at the UN Conference on Disarmament).[71]

And, finally, the joining of the Treaty immediately put before its depositaries the issue of making a more tangible contribution to the promotion of international cooperation in the field of the peaceful uses of nuclear energy.

The question of signing or not signing the Non-Proliferation Treaty required inordinate efforts on the part of the non-nuclear states too. Alongside the military-political considerations of national prestige and the situation in the given region, an objective analysis of all factors led many non-nuclear states to a well-grounded conclusion in favour of assuming clearly-defined legal obligations not to possess nuclear weapons, in favour of their participation in the Non-Proliferation Treaty.

This balance of interests determined the essence of verification of compliance with the Treaty and the specific of that verification system.

Under Article III of the Treaty, verification of compliance with the obligations assumed by the states which do not possess nuclear weapons is to be carried out by the International Atomic Energy Agency (IAEA). By the time of the signing of the Non-Proliferation Treaty *the IAEA safeguards system* was already in operation. The establishment of that system was provided for by the Statute of that international organization when it was set up in 1957, and it was the first ever system of international control over arms limitation measures conducted by a special international body. The Soviet Union, in cooperation with other countries, actively participated in the elaboration of the IAEA Statute and was among the first states to ratify that instrument which entered into force on July 29, 1957, and became a permanent member of it's Board of Governors.

The IAEA began to consider norms and procedures for safeguards on the basis of the Statute in 1959, and in 1961 it adopted the first safeguards document containing the description of control procedures for the reactors with the heat-generation capacity less than 10 megawatts, i.e. actually for research and pilot reactors. The revised procedures were approved in September 1965.

Upon a proposal made by the developing countries and backed by the Soviet Union, a provision to the effect that the safeguards should not impede the development of nuclear energy uses for peaceful purpose was included in the document.

In 1966, the safeguards system was extended to all plants chemically reprocessing nuclear fuel used in reactors and extracting plutonium, and in 1968, to the plants producing heat-generation elements, - atomic reactor fuels.

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[71] For more detail see: B.P. Karuselin, Political Guarantees of Eliminating the Nuclear Threat, Moscow, 1984, pp. 93-99 (in Russian).

This system of the Agency's safeguards is in operation at present and is used for concluding safeguards agreements with non-nuclear nations which have not acceded to the Non-Proliferation Treaty.

Way back in March 1966, when the elaboration of the Non-Proliferation Treaty was just at the initial stage, the Soviet Union voiced its readiness to examine the issue of using IAEA measures (safeguards), to prevent the proliferation of nuclear weapons. In June 1967, it submitted a proposal to the Board of Governors on setting up an ad hoc committee which would investigate the entire range of problems associated with the overhaul of the IAEA verification activities. The Board of Governors adopted a decision to conduct consultations to elaborate measures to prepare the Agency for increased responsibilities under the Non-Proliferation Treaty.

With the signing of this Treaty the Agency's system of safeguards acquired a new dimension and actually became a universal system of monitoring non-proliferation of nuclear weapons and a key element in the *nuclear arms non-proliferation regime.*

As defined in the Treaty, the purpose of verification, - prevention of "diversion of nuclear energy from peaceful uses to nuclear weapons or other nuclear explosive devices", - is somewhat different from the purposes of safeguards as they are defined in the IAEA Statute. The latter sets the task "not to further any military purpose". Unlike the Agency's Statute, the Non-Proliferation Treaty does not call for control, for example, over nuclear-powered engines of warships. At the same time the IAEA Statute does not prescribe the use of safeguards for peaceful application of nuclear explosions. Meanwhile the Non-Proliferation Treaty does not draw a distinction between nuclear weapons and other nuclear explosive devices inasmuch as the matter concerns the prohibition of their creation by non-nuclear-weapon states and establishment of relevant international safeguards. Nuclear states are prohibited to render services to non-nuclear countries in nuclear explosions for peaceful purposes "under appropriate international observation and through appropriate international procedures".

In 1967-1971, the IAEA elaborated specific norms and procedures of international control over the non-proliferation of nuclear weapons on the basis of its Statute, the system of safeguards and the provisions contained in Article III of the Treaty. The model agreement on the Agency's safeguards under the Non-Proliferation Treaty, which was approved by the Board of Governors in April 1971, stipulates not only the Agency's right to apply the safeguards provided for by the Treaty and defined in the safeguards agreements, but also an IAEA obligation to exercise such control.

It should be noted that in practice the balance of the obligations assumed by the nuclear and non-nuclear states has shifted in favour of the latter. In accordance with the Non-Proliferation Treaty, the states possessing nuclear weapons are not under an obligation to place their nuclear activities under IAEA safeguards, However, displaying goodwill and wishing to upgrade the methods states parties to the Treaty (the USSR, the USA and Great Britain), as well as France which does not participate in this instrument, concluded an agreement with the IAEA on applying its safeguards. Later a draft of a similar agreement with China, which is not a party to the Treaty, has been drawn up.

The Non-Proliferation Treaty was the first international agreement in the field of arms limitation and disarmament stipulating such an additional means of ensuring the observance of its provisions as regular conferences convened to review the operation of the Treaty "with a view to assuring that the purpose of the Preamble and the provisions of the Treaty are being realized". Later on, a similar procedure was also put into practice as regards some other agreements (the Treaty on the Prohibition of the Emplacement of Nuclear Weapons and Other Weapons of Mass Destruction on the Seabed and Ocean Floor and the Subsoil Thereof, the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological), and Toxin Weapons and on their Destruction, the Convention on the Prohibition of Military and Any Other Hostile Use of Environmental Modification Techniques).

The conferences examining the operation of the Non-Proliferation Treaty, held in 1975, 1980 and 1985, did not register any violations of the basic obligations by the participating states in the observance of the non-proliferation regime.

Meanwhile, the general non-proliferation situation is rather complex. A number of states possessing the technology allowing them to produce nuclear weapons, as well as two nuclear powers, still have not acceded to the Treaty.

Further consolidation of the non-proliferation regime remains a rather urgent task. The conference on examining the operation of the Treaty, scheduled for 1990, has a major role to play in ensuring the non-proliferation regime.

International rules of control over nuclear exports have been elaborated with a view to strengthening the non-proliferation regime.

The first conference held by the suppliers of nuclear materials, equipment and technology, - of delegates of the USSR, the USA, Britain, France, West Germany, Japan and Canada, - was convened in London in April 1975. From the outset the Soviet Union insisted on of a broad participation of not only the present but also potential exporters of nuclear materials and equipment. As a result, the list of participants was more than doubled, to comprise 15 nations. Later on, the German Democratic Republic, Poland, Czechoslovakia, Italy, Belgium, the Netherlands, Sweden and Switzerland joined the London proceedings. France, which is not a party to the Non-Proliferation Treaty, played a positive role there, too.

The conference of experts held in 1977 elaborated a so-called London accord on the Guidelines for Nuclear Transfers which were brought to the notice of the International Atomic Energy Agency.[72]

Consenting to the London arrangements, the Soviet government confirmed in a special statement addressed to the Agency its determination to continue its efforts to secure agreement between countries supplying nuclear materials, equipment and technology on the principle that IAEA safeguards must be applied to all nuclear activities of non-nuclear-weapon States when those States receive any of the items mentioned in the initial list. The Soviet statement stressed

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[72] IAEA Doc., INFCIRC/209 and Add. 1-8.

that the principle of full control is indispensable for providing efficient safeguards capable of preventing the use of nuclear materials, equipment and technologies for the creation of nuclear weapons or other nuclear explosive devices.

The Soviet Union proceeds from the fact that the states involved in nuclear exports bear a special responsibility for preventing the international flow of nuclear materials and equipment from turning into a channel for nuclear arms proliferation. A still more reliable control should be imposed on nuclear exports. It is necessary to bring to fruition the undertaking initiated by the London conferences in the 1975-1977 period and adopt a coordinated international order in which an imperative condition for the deliveries to all non-nuclear countries would be in compliance with the requirements for IAEA safeguards not only over the supplied materials, equipment and technologies but also over the entire range of nuclear activities carried out by these countries. Another important task in this field is to increase the number of the participants in the London accords.

In January 1982, the USSR Council of Ministers approved the Provision on the Exports of Nuclear Materials, Technologies, Equipment, Facilities, Special Non-Nuclear Materials and Services regulating the exports of relevant products and services from the Soviet Union to the countries not possessing nuclear weapons if such deliveries are employed for peaceful purpose. The Provision rests on the Soviet policy in the non-proliferation field and the obligations of the Soviet Union stemming from the Non-Proliferation Treaty and the above-mentioned international accords on control over nuclear transfers.

The establishment of nuclear-free zones is a radical step to diminish the threat of war, narrowing down the geographical zone of nuclear preparations and strengthening the non-proliferation regime. In this area, too, we witness the emergence of a specific verification system fitting into the general pattern in the development of control along with the unfolding process of nuclear disarmament.

The Antarctic Treaty[73] signed in Washington on December 1, 1959, which entered into force on June 23, 1961, was a forerunner of subsequent agreements on nuclear-free zones. It prescribes the use of the sixth continent for peaceful purposes only, unimpeded scientific research, and prohibits any nuclear explosions in Antarctica and the disposal of any radioactive waste material from that area. The provisions of the treaty on verification and inspection boil down to the following.

In order to promote the objectives and ensure observance of the Treaty, each party is entitled to participate in consultative meetings (this refers to those of them which are engaged in "substantial research"), and appoint observers for conduction inspections. Each observer has "complete freedom of access at any time to all areas of Antarctica. All Antarctic regions, including all stations, facilities and equipment in these regions, and all ships and aircraft at points of discharging or embarking cargoes or personnel "shall be open at all times to inspection by any observers". Besides, "aerial observations may be carried out at any time over any of all areas of Antarctica by any of the contracting parties having the right to designate observers".

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[73] Status of Multilateral ..., pp. 12-20.

When discussing the draft treaty, proposals were made to limit the number of observers. However, it was decided not to set limits to their number, since at the time of concluding the Treaty is seemed impossible even to surmise how many observers would be needed in the period of a more intensive development of Antarctica.

It follows that the Antarctic Treaty establishes a system of an essentially unlimited control.

The almost 30-year record of that Treaty shows that its provisions are scrupulously observed by all parties. That is why the Soviet Union, as well as many other states, are not very enthusiastic about conduction inspections. Early in 1989, the first Soviet inspection was completed in keeping with the Antarctic Treaty. Soviet experts examined 15 stations in 14 states and visited nearly all relevant research centres. The inspections did not reveal any violations of the Treaty, which was reported in the Soviet press, in particular in the newspaper *Pravda*, on March 2, 1989.

The Treaty for the Prohibition of Nuclear Weapons in Latin America (Treaty of Tlatelolco), signed on February 14, 1967,[74] contains obligations of the parties to prohibit and prevent in their respective territories the testing, use, manufacture or acquisition of any nuclear weapons, as well as the receipt, storage, installation, deployment and any form of possession of such weapons by the parties themselves, by anyone on their behalf or in any other way; and refrain from encouraging, authorizing or participating in such activities.

The Treaty also contains obligations for non-Latin American countries. Additional Protocol I imposes the Treaty's obligations upon the countries that are responsible, either *de jure* or *de facto*, for territories in Latin America, i.e. the USA, Britain, France and the Netherlands. France signed that protocol but has not ratified it. Additional Protocol II makes it incumbent upon the nuclear powers to observe the status of a nuclear-free zone in Latin America. All nuclear powers have acceded to that protocol.

There is a dual system of international verification of compliance with the obligations under the Tlatelolco Treaty. Thus, the parties to the Treaty are to negotiate agreements with the IAEA on the application of its safeguards to their nuclear activities. Besides the Treaty provides for the establishment of a specifically Latin American verification system to check compliance with the relevant obligations as regards the prohibition of the use and manufacture of nuclear weapons and the prevention of banned activities involving the use of nuclear materials and weapons brought from abroad.

To exercise this verification in practice, a special organization of the Tlatelolco Treaty members has been set up: the Agency for the Prohibition of Nuclear Weapons in Latin America (OPANAL), comprising the following bodies: the General Conference, the Council and the Secretariat. Sessions of the General Conference are held once in two years. The Soviet Union sends its observers to these sessions. The Council, composed of five members elected for a four-year term, functions on a permanent basis.

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[74] Ibid., pp. 46-61.

The Soviet Union, which has signed and ratified Additional Protocol II to the Tlatelolco Treaty, unswervingly observes its obligations and advocates the consolidation of the non-nuclear status of the Latin American countries. This position has been confirmed in the message of greeting sent by Eduard A. Shevardnadze, USSR Minister of Foreign Affairs, to the OPANAL Secretary General on the occasion of the 20th anniversary of the Tlatelolco Treaty.

The South-Pacific Nuclear-Free-Zone Treaty (Rarotonga Treaty),[75] which entered into force on December 11, 1986, has become a new substantial element of the international regime of the non-proliferation of nuclear weapons.

The Treaty provides for the renunciation by its participants of the production, acquisition and deployment of nuclear weapons and other types of nuclear explosive devices in their territories, and prohibits any nuclear explosions and the burial of radioactive wastes in the zone.

The Parties also undertook to assist in the preservation of the international system preventing the proliferation of nuclear weapons, which is based on the Non-Proliferation Treaty and the IAEA safeguards system. The Treaty envisages the following elements relevant to the verification mechanism: reports and exchange of information; consultations; the application of IAEA safeguards to peaceful nuclear activities; the procedure for submitting complaints.

The Treaty also provides for setting up a Consultative Committee to facilitate consultations and cooperation on any issue associated with the Treaty, or for reviewing its operation.

Protocols II and III are open for signing by all five nuclear powers. Protocol II contains an obligation to respect the status of a nuclear-free zone in the South Pacific, to refrain from the use or a threat to use nuclear weapons against the signatories of the Rarotonga Treaty. Protocol III makes it binding upon its parties not to explode any nuclear devices in the zone covered by that Treaty. Protocol I relevant to the USA, Britain and France makes it incumbent upon the above-mentioned powers to apply the relevant provisions of the Treaty to the territories under their control in this zone. In their final form the Protocols were approved at the South-Pacific Forum in August 1986 and are open for signing since December 1, 1986.

The Soviet Union was the first nuclear power to sign Protocols II and III on December 15, 1986.

To render the non-nuclear regime more viable in the South Pacific and taking into account the opinion of the Rarotonga Treaty parties, the Presidium of the USSR Supreme Soviet ratified Protocols II and III in February 1988, thereby confirming the intention of the Soviet Union to comply with their provisions without any reservations.

On February 10, 1987, Protocols II and III were signed by the People's Republic of China. The governments of the United States and Great Britain withheld their consent to sign the protocols.

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[75] Ibid., pp.169-181.

After the ratification of the Treaty, its signatories took further steps to consolidate the nuclear-free status of the South Pacific. On June 5, 1987, the parliament of New Zealand passed a law on proclaiming New Zealand a nuclear-free zone, on disarmament and arms control, a law which not only prohibited the deployment of nuclear weapons in the country, but also banned calls of warships with such weapons on board or equipped with nuclear engines to New Zealand ports. Vanuatu, the Solomon Islands and Fiji also refused to receive nuclear-powered ships or ships with nuclear weapons on board.

As we see it, national means of verification and establishment of a multilateral verification system by the participants in a zone can afford a tangible opportunity for exercising control over the nuclear-free status of the zones. As for the multilateral system, mention should be made of the Soviet statement on the attractiveness of the idea of a joint elaboration by the parties concerned of the technical facilities to verify the absence of nuclear weapons on board warships. The Soviet move also indicated the USSR's readiness, on a reciprocal basis with the USA and other nuclear powers, to declare the presence or absence of nuclear weapons on board its warships calling at the ports of other countries.

International agreements banning the deployment of nuclear weapons in outer space (which is a subject to be discussed in a following chapter) and on the seabed were a major step to bar a possible deployment of nuclear weapons.

The Treaty on the Prohibition of the Emplacement of Nuclear Weapons and Other Weapons of Mass Destruction on the Seabed and Ocean Floor and the Subsoil Thereof,[76] which was signed simultaneously in Moscow, Washington and London on February 11, 1971, contains an obligation neither to emplace nor to deploy on the seabed and the ocean floor and the subsoil thereof beyond the 12-mile outer limit any nuclear weapons or another types of weapons of mass destruction as well as structures, launching installations or any other facilities specifically designed for storing, testing or using such weapons.

Procedures of verification of non-emplacement of mass-destruction weapons on the seabed were elaborated by the co-authors of the draft treaty, - the Soviet Union and the United States, - with an active participation of other countries, Canada for one, whose delegation tabled a special working paper for the consideration of the Committee on Disarmament.[77]

The procedures are consistent with recognition by international law of the freedom of the high seas. They have taken into account the fact that the Treaty does not foresee a comprehensive prohibition of military activities on the seabed but only bans the use of the seabed for the emplacement of mass-destruction weapons and the means of their use. The verification procedures take into account the specific activities of states on the seabed and its subsoil, guaranteeing that the implementation of the right of verification would not interfere with such activities.

Proceeding from the principle of the sovereign equality of states and their common interest in averting the spill-over of the nuclear arms race to the seabed, the Treaty recognizes

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[76] Ibid., pp. 100-104.

[77] Doc. of the Committee on Disarmament, ENDC/PV. 410.

the right of verification equally for all its parties. For a broader participation of the states in the practical implementation of the verification right the Treaty envisages an opportunity of assistance in its implementation by other participants in the Treaty.

The Treaty provides for the establishment of an international system monitoring compliance with this obligation. The states parties to the Treaty are granted the right to supervise the activities of other participants on the seabed and the ocean floor in the zone covered by the Treaty with the reservation that this observance should not interfere with such activities.

It is stipulated that if such observations leave in their wake some reasonable doubts about compliance with the contractual obligations, the state having such doubts and the state responsible for the activities giving rise to these doubts enter into consultations for removing them, but if the doubts have not been dispelled, they cooperate with the aim of reaching an understanding on further verification procedures, including a relevant on-site inspection of the objects which could give sufficient grounds for including them among those whose emplacement is prohibited by the Treaty. The parties to the Treaty that are in the region of such activities as well as other participants must be notified of these consultations and such cooperation and may take part in them.

When an inspection of an object does not permit to identify the state responsible for the activities evoking legitimate doubts, the states having such doubts address an inquiry to the contracting states in the area where such activities take place and to other parties to the Treaty. If the inquiries make it possible to establish a state responsible for such activities, that state confers and cooperates with other states in order to remove their doubts about compliance with obligations under the Treaty. When inquiries are of no help, the inquiring state has the right to resort to other verification procedures, including inspection, for which it may invite other parties to the Treaty.

If even after these consultations and cooperation serious misgivings as regards compliance still persist, the state party may, in keeping with the UN Charter, submit the matter to the UN Security Council.

Verification may be carried out by any signatory state either with the assistance of another state party to the Treaty or through appropriate international procedures "within the framework of the United Nations and in accordance with its Charter".

Finally, the Treaty provides for the convocation of a conference of its participants five years after its entry into force in order to review the operation of the Treaty "with a view to assuring that the purpose of the preamble and the provisions of the Treaty are being realized". Such review should take into account "any relevant technological developments".

In their Final Declarations the conferences held on the basis of a Consensus to review the operation of the Seabed Arms Control Treaty in Geneva in June 1977 and in the autumn of 1983, states that the obligations assumed under the Treaty had been observed in good faith. The third conference to review compliance with the Treaty was held in 1989.

In the 1960s, prior to the conclusion of the Non-Proliferation Treaty, a number of prominent politicians believed that quite soon there would be at least 15 to 20 countries in the world possessing nuclear weapons. Today, when more than 20 years have elapsed since the Treaty became open for signing, it is safe to say that these misgivings proved wrong. As before, there are only five countries possessing nuclear weapons, i.e. the United States, the Soviet Union, Great Britain, France, and China. The number of these states has not increased. This is a clear proof of the effectiveness of the non-proliferation regime based on the Treaty and the IAEA safeguards, as well as the accords on the nuclear transfers and the established pattern of the multilateral and bilateral consultations of the parties to the Treaty.

In a nutshell, the first and major conclusion is that the Treaty is a formidable international legal barrier to a serious potential threat of proliferation of nuclear weapons comparable to a chain reaction. And all this is happening when many countries have reached a level in their scientific and technological progress enabling them to make their own bomb. In other words, having realized that the proliferation of nuclear weapons poses a manace to all, mankind had been able to provide an adequate collective response to that threat.

A broad international recognition of the idea of the non-proliferation of nuclear weapons is confirmed by the fact that, as a rule, countries that have not acceded to the Treaty itself do not argue against its principles but actually are guided by them in their political, commercial and economic activities. In this sense it is appropriate to speak about the universality of these principles.

True, among the non-participants in the Non-Proliferation Treaty there are countries demonstrating their nuclear ambitions. Their acceding to the Non-Proliferation Treaty would be an option meeting the interests of all, including these countries.

Second, the key element of this response was, and remains, the international verification system.

The IAEA, entrusted under the Treaty with verification functions, has managed to elaborate a system of safeguards efficiently and reliably preventing the transfer of nuclear materials from peaceful uses to the production of nuclear weapons. And this verification is exercised with full respect for the sovereign rights of the states, not prejudicing their peaceful nuclear activities and international cooperation in the peaceful uses of nuclear energy.

Moreover, effective verification geared to preventing a proliferation of nuclear arms, while performing this vital function, stimulates wide-range international cooperation in the peaceful uses of nuclear energy. Already today this Treaty demonstrates to most states the validity and effectiveness of the peaceful alternative to the military uses of nuclear energy.

A point to note here is that in the sphere of non-proliferation of nuclear weapons, conflicts over verification issues have been minimal. And all this happens in the conditions when international verification under the Non-Proliferation Treaty covers far from all activities banned by the Treaty. It does not contain provisions establishing international verification of compliance of nuclear weapons to anyone. The Treaty makes no provisions for verification of compliance with the obligations of the non-nuclear states not to receive any nuclear weapons or other nuclear

explosive devices from anyone. The cross-check system of the IAEA safeguards recently supplemented with the Agency's control over a part of the nuclear activities of all the five nuclear powers and regular multilateral and bilateral consultations reliably compensate this formal "omission".

Third, the preservation and consolidation of the Non-Proliferation Treaty is a factor indispensable for stable and uninterrupted development of the nuclear disarmament process. Resolutely supporting the Treaty, the Soviet Union believes that this vital instrument should retain its validity until a nuclear-free and non-violent world becomes a reality. In its opinion, this agreement could be succeeded only by a comprehensive international treaty ruling out a restoration of nuclear weapons after their total and final elimination.

And, finally, the practice of the non-proliferation regime indicates that verification agreements signed by the states with the IAEA, which establish the principles of an independent verification of their peaceful activities, can serve as a model for the elaboration of a system of verification of compliance with agreements in the area of disarmament.

The Soviet Union welcomed the idea expressed in the messages by Hans Blix, IAEA Director General, to Mikhail Gorbachev and Ronald Reagan, in which Mr. Blix suggested to use verification experience of the Agency in the field of the safeguards for the non-proliferation of nuclear weapons. The message stressed that in elaborating still more radical disarmament measures, which should follow the INF Treaty, the Soviet side would strive to incorporate in them the most effective provisions on verification of their observance, and here the IAEA experience would be of great help.

6. *Convention on the Physical Protection of Nuclear Materials, on Prompt Notification of a Nuclear Accident and Assistance in the Event of Such an Accident. Development of Verification and Its Role in the Elimination of Nuclear Arms, in Combating Nuclear Terrorism and Guaranteeing Non-Restoration of Nuclear Weapons.*

In recent years several agreements have been signed, and their potential allows us to say that their implementation is of major significance not only for the present but also for the subsequent phases of nuclear disarmament, down to its last phase.

Among these accords is, above all, the *Convention on the Physical Protection of Nuclear Materials*[78] which became open for signing on March 3, 1980, and entered into force on February 8, 1987. It was ratified by the Soviet Union on March 4, 1983.

The convention sets levels of physical protection applicable to nuclear materials during international transit. It draws attention to the significance of the physical protection of nuclear materials in the process of utilization, storage and transit within a country. The parties to the

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[78] IAEA Doc. INFCIRC/274/Rev. 1.

Convention pledged themselves to cooperate in adopting warning measures and to exchange information on acts concerning nuclear materials, such as theft, sabotage and extortion.

Under the Convention the signatory states themselves set up their central body and a communication centre which will be responsible for the physical protection of nuclear materials, for agreed measures on their retrieval and for response actions in the event of illegal displacement; for the use of change of nuclear materials or in the event of a real threat of such an action, and will inform each other directly or through the International Atomic Energy Agency.

In cases of theft, robbery or any other illegal seizure of nuclear materials or a real threat of such actions, the parties to the Convention ensure, in keeping with their national legislation, utmost cooperation and will assist any state on its request in retrieving and protecting such materials. In particular, a signatory state takes appropriate measures promptly to inform other states which in its opinion are affected by an act of theft, robbery or other illegal seizure of nuclear materials or a real threat of such action, or to inform, when necessary, international organizations; the parties to the convention concerned exchange information among themselves or with international organizations to assure protection of a nuclear material under a threat of illegal seizure, checking if a transport container was not broken open or forced, or a return of illegally seized nuclear material; they coordinate their efforts along diplomatic and other agreed channels, render aid when requested; assure retrieval of nuclear material when it is stolen or lost as a result of the events mentioned above.

In accordance with the Convention, five years after its entry into force the depositary (Director General of the IAEA), is to convene a conference of the parties to consider the question of compliance with the Convention and see if its preamble, its entire operative part and supplements meet the requirements of a situation at the moment.

In future, most of the parties to the Convention may call conferences, not more than once in five years, for the same purpose, having submitted to the depositary a proposal on calling such a conference.

In case of a dispute between two or more parties over the interpretation or application of the Convention, those states hold joint consultations to settle the dispute through negotiations or by any other peaceful means acceptable for all the sides in a dispute.

Any such dispute, which can be settled in the above-mentioned ways at the request of any side in the dispute, is to be settled by arbitration, or the case is to be brought before the International Court of Justice. In case a dispute is to be settled by arbitration, if the sides in the dispute cannot come to terms during six months since the request was made on the way of organizing arbitration, one of the sides may ask the Chairman of the International Court of Justice or the Secretary General of the United Nations to appoint one or more arbitrators. If the requests of the sides in a dispute are contradictory, priority is given to an appeal to the UN Secretary General.

So, the Convention provides for a fairly ramified system of cooperation measures, including those related to overcoming differences and to making it correspond to the requirements of the situation. This allows one to make the conclusion that the Convention , applied to nuclear

materials in transit, could be extended with time (for instance, by adopting an additional protocol to it), to the entire cycle of the utilization and storage of nuclear materials for peaceful purpose. Such a solution could be instrumental for preventing nuclear terrorism.

The main part of the international regime of preventing nuclear terrorism could be agreements on banning radiological weapons, all the more so since during the long discussion of the matter at the United Nations and the Committee (Conference) on Disarmament there emerged quite a broad area for agreement.

As a result of the Soviet-American consultations, the two sides agreed to a joint proposal on the chief elements of a treaty banning the development, production, stockpiling and use of radiological weapons, submitted to the Committee on Disarmament on July 9, 1979.[79]

According to the proposal, the parties to the future treaty would refrain from developing, stockpiling, acquiring in any way, or using radiological weapons; they should not possess these weapons. A radiological weapon, it was pointed out, is any technical means, including a weapon or a piece of equipment which is not a nuclear device and is specially designed for using radioactive materia, as well as any radioactive material, not produced by nuclear explosive device and designed specially for being spread with the purpose of destroying, damaging or bringing harm by means of radioactive radiation caused by the fission of such material. Each party to the treaty would commit itself not to use, intentionally, any radioactive material not defined as a radiological weapon and not produced by an explosive device. Besides, the parties assumed a commitment neither to help, nor to encourage, not to provoke any person, state, a group of states or an international organization to conduct any activity banned under the treaty.

The system of measures to assure compliance with the proposed treaty is similar in many ways to those provided for by the Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques.

The parties to the treaty would undertake to consult one another and cooperate in solving any problems which may arise with regard to the objectives of, or in the application of the provisions of, the treaty. Consultations and cooperation would be conducted through appropriate international procedures in the framework of the United Nations and in keeping with it's Charter. These international procedures may include the services of international organizations and also of the Consultative Committee of Experts.

The Committee would be summoned by the depositary within one month after the receipt of a request from a states party. Any state party may appoint an expert to the Committee. The Committee would transmit to the depositary a summary of it's findings of fact, incorporating all views and information presented to the Committee during proceedings. The depositary would distribute the summary to all the parties.

In future, any party to the treaty which would have reason to believe that any other party would be acting in breach of obligations deriving from the provisions of the treaty may lodge a

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[79] Doc. of the Committee on Disarmament, CD/31.

complaint with the Security Council of the United Nations. Such a complaint should include all relevant information as well as all possible evidence supporting it's validity. The parties would undertake to cooperate in carrying out any investigation which the Security Council may initiate, in accordance with the provisions of the UN Charter and on the basis of the complaint received by the Council. The Security Council would then inform the parties of the results of the investigation.

The functions of the Consultative Committee resemble those of a similar committee provided for by the Environmental Modification Convention.

In March 1980, the Committee on Disarmament set up an ad hoc working team to agree on the text of a convention banning the development, production, stockpiling, and use of radiological weapons, which, however, failed to complete its work during 1980 and suggested that the work be resumed next year.

Late in 1981, the 36th session of the UN General Assembly again asked the Committee on Disarmament to speed up the drafting of a treaty banning radiological weapons.[80] Since then requests to continue the negotiations on the issue have been sent every year, but no progress has been made so far.

The Soviet Union has declared that it is ready to solve these problems both separately and all together. Separate solution is preferable to the Soviet side because there exists a fairly good basis, including the 1979 Soviet-American draft, for solving the problem.

The Soviet Union is prepared to start working out an appropriate international agreement, making it binding on states not to attack peaceful nuclear facilities and extending a possible system of international legal protection above all to the nuclear facilities that are under IAEA safeguards. Besides, the Soviet Union would not object to such a system covering plants not covered by these safeguards, provided the plants are used for peaceful purposes. To ensure physical identification of facilities subject to protection against attack, they could be marked by an agreed symbol. The convention could provide also for assistance in devising measures of protection from the dangerous effects of radiation.

An all-round solution formula, as the debate at the Conference on Disarmament has shown, poses more problems than it solves them. Agreeing to either version, the Soviet Union is ready to join the search for a compromise solution making it possible to start practical advancement towards reaching agreements.

Possibly, such a compromise could be, as the first step, reaching an agreement on preventing nuclear terrorism, for instance, in the form of an additional protocol to the Convention on the Physical Protection of Nuclear Materials. According to that protocol, each side would take required legislative, administrative and technical measures in the framework of its jurisdiction and in keeping with international law to prevent and suppress acts of nuclear terrorism and preparations for them.

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[80] A/Res. 97 (XXXVI).

Mandatory granting of required information would have limitations dictated by the legislation of both sides. Problems of punishment for an act of nuclear terrorism could be solved in a generally acceptable way.

In general, a reliable system of measures should be devised with regard to nuclear terrorism and nuclear piracy. This is confirmed by the facts of premeditated damage to atomic industry facilities and instances of stealing highly enriched fissionable materials. The radiation danger and high toxicity of nuclear materials insistently demand their reliable protection against criminal encroachment. It is not ruled out that such materials may be seized for making elementary nuclear explosive devices to be used for acts of sabotage and terrorism, as well as for blackmail and extortion. It is time to produce a reliable system of measures to prevent nuclear terrorism in any form. It seems feasible to reach a separate agreement on that score and decide the question through joint efforts in combating international terrorism.

Such a cardinal solution would simultaneously strengthen the regime of a safe development of nuclear power engineering. The USSR-proposed *Convention on Early Notification of a Nuclear Accident and Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency*,[81] signed in Vienna on September 26, 1986, at a special session of the IAEA General Conference, already operates as part of such a regime.

Having signed these conventions, the Soviet Union declared that it would implement them since the time of their signing on a temporary basis, not waiting for their ratification and entry into force.

These accords are an example of how the states, displaying new thinking and will, can in extreme situations find generally acceptable solutions meeting the interests of the whole of mankind.

On May 14, 1986, Mikhail Gorbachev described in detail the situation that obtained in connection with the Chernobyl accident and proposed a programme of establishing an international regime for a safe development of nuclear power engineering and advanced as its component a proposal on establishing a system of early notification of accidents at nuclear power plants and on a mechanism of rendering assistance. On May 22, these proposals were approved by the IAEA Board of Governors. The meeting of government experts from 56 countries, held from July 21 to August 15, 1986, drafted both conventions within four weeks. On September 26, the convention was signed, and more than 50 states put their signatures that day. The convention on Early Notification entered into force in October 1986 and the Convention on Assistance in the Case of a Nuclear Accident, in February 1987.

The proposal on setting up an international system of global radiation safety control, using space communication lines, submitted on August 6, 1987, by USSR Minister of Foreign Affairs Eduard Shevardnadze at the Conference on Disarmament in Geneva,[82] meets the purpose of increasing nuclear and radiation safety. Such a system could be used for verification of compliance with a nuclear test ban, when such a ban is introduced, and for registering the

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[81] IAEA Doc. INFCIRC/336.

[82] Pravda, August 7, 1987.

pollution level of the atmosphere, soil, and subterranean and sea water on a global and regional scale. It could serve as an additional security measure in case of malfunction, not to mention accidents, at nuclear power plants.

Special mention should be made here of the following event associated with the elaboration of the two Vienna Conventions.

At a meeting of experts delegates from several countries, among them India, Mexico and Spain, proposed that the provisions of the conventions should also cover accidents at the plants used for military purposes. They noted reasonably that the populations of the neighbouring countries facing radiation danger because of the transborder effects of a nuclear accident do not care, in fact, if it occurred at a nuclear plant used for peaceful or military purpose. Considering their concern, the Soviet delegation announced that the USSR was ready to include in the convention an obligation to report all nuclear accidents with transborder effects, including accidents at the plants used for military purposes, on warships and submarines, and accidents with nuclear weapons and during nuclear tests.[83]

The significance of the adoption in Vienna and introduction in international practice of the obligation to report nuclear accidents in the military area by far exceeded the limits of the conventions' drafted provisions. This step doubtlessly facilitated confidence building in the relations among states and create a more favourable climate for solving other problems arising in military nuclear activity. The report sent by the USSR to the IAEA on the accident on a Soviet nuclear submarine in October 1986, which was done on a voluntary basis, confirmed the USSR's declared readiness to notify of all nuclear accidents, including accidents at military facilities, accidents with nuclear weapons and those occurring during nuclear tests.[84]

This aspect of the notification convention has reaffirmed that nuclear security is inseparable from the cessation of the material preparations for nuclear war, from the complete elimination of the means of nuclear warfare.

The Soviet Union believes that, as mankind is moving towards a nuclear-free world, it is necessary to see, already now, how to assure security in the disarmament process, at its every stage, and simultaneously to agree on a mechanism of maintaining peace on lower levels of non-nuclear weapons.

It is hard but possible to solve the problem of establishing a mechanism of preventing a nuclear conflict and coordinating measures in the event of a violation of an all-embracing agreement on the non-use of nuclear arms and their elimination or in case an attempt is made to violate such an agreement. The question of guarantees that nuclear arms will not be restored should be thought over and solved in due time. Some people say that once mankind created nuclear arms, it will never be able to forget how they are made. But this is precisely why a whole mechanism of all-round control is required to prevent nuclear technology from materializing into arms manufacture.

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[83] Pravda, November 15, 1986.

[84] See: International Affairs, No. 7, 1988.

It is only natural that for a consistent and timely solution of all these complex problems, verification being an integral part of these efforts, it would be necessary cardinally to enhance the role of the United Nations and the IAEA.

The world free of nuclear weapons is becoming a reality. But to make it such once and for all, immense work is yet to be done, and the testing out of the most stringent verification mechanisms at all stages of nuclear disarmament under effective international control is a major part of this work.

CHAPTER THREE

CONTROL OVER THE PREVENTION OF AN ARMS RACE IN OUTER SPACE

From the very beginning of the space age the USSR has been supporting peaceful cooperation in outer space, opposing a spillover of the arms race to outer space.

In its memorandum on disarmament of March 15, 1958, the USSR, - by then the only "space power" in the world, - made a proposal to ban all forms of military use of outer space, and make missile launches only in keeping with an agreed international programme, simultaneously providing for the liquidation of foreign military bases on the territory of other countries.[85] The memorandum also provided for the establishment, within the UN framework, of a corresponding mechanism to verify compliance with these obligations, but the provisions on verification were not specified with regard to definite spheres, including outer space.

As a result, the whole Soviet conception of control turned out to be related exclusively to the prospect of general and complete disarmament.

The Soviet proposals were turned down, and that stalemate situation as regards non-militarization of outer space largely persisted till the 1960s-1970s, when the treaties were signed substantially limiting the possibility of using outer space for military purposes.

The 1963 Moscow Treaty banned nuclear weapon tests and any other nuclear explosions in the atmosphere, in outer space and under water. Yet it did not exclude the possibility of stationing nuclear arms in outer space.

This problem was solved in the 1967 Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies. Most essentially, the states parties undertook "not to place in orbit around the Earth any objects carrying nuclear weapons or any other kinds of weapons of mass destruction, install such weapons on celestial bodies, or station such weapons in outer space in any other manner." The Treaty also banned the establishment on celestial bodies of "military bases, installations and fortifications, the testing of any type of weapons and the conduct of military manoeuvres." Outer space has thus acquired in international law a status of the first spatially unlimited "zone" free from weapons of mass destruction.

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[85] UN Doc. A/3818 (XIII).

There are other multilateral agreements limiting the military use of outer space, such as the *1977 Convention* on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques, saying that changing the ozone layer and the ionosphere is banned as a means of the military use of outer space.

Special note should be made of the termless Soviet-American treaty on the Limitation of Anti-Ballistic Missile Systems (ABM Treaty) signed in 1972. The Treaty is of fundamental importance for the whole process of nuclear arms limitation. According to it, the signatories believe that effective measures to limit anti-ballistic missile systems would be an essential factor in holding the strategic offensive arms race and would lead to a lesser danger of war with the use of nuclear weapons.

In this context mention should also be made of the SALT I and SALT II treaties, the more so as the latter provides not only for quantitative but also for qualitative limitation of the use of outer space for military purposes: among other things, it contains provisions limiting the possibilities for developing vehicles to put nuclear weapons into orbit around the Earth and partially orbital vehicles.

During the course of drafting these and some other agreements limiting the extension of the arms race to outer space, the Soviet position on control underwent certain changes. All these agreements, except the 1963 Moscow Treaty, contain control provisions which boil down to the following.

The Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies[86], (allowing for the specifics of the objects of study and use, - outer space, the Moon and other celestial bodies, - and their openness to all States) provides for a rather broad freedom of access to the observation of any installations place on the Moon and other celestial bodies. In accordance with Art. XII, all stations, installations, equipment and spaceships on the Moon and other celestial bodies are open, on the basis of reciprocity, to representatives of the states parties. These representatives are to notify beforehand about their planned visit in order to be able to make relevant consultations and take maximum precaution measures to ensure safety and avoid interference with normal operations on the installation to be visited.

In keeping with the Treaty, reciprocity is a condition for a possible visit to the station by representatives of other states. Besides, the state whose representatives intend to visit the station cannot independently, unilaterally fix the time and terms of such a visit, despite the provision of Art. I of the Treaty saying that outer space, including the Moon and other celestial bodies are open to all states.

To promote international cooperation in the peaceful exploration and use of outer space, the states parties agreed to consider on an equal basis the requests of all participating states for giving them the opportunity for observing the flight of launched space objects. The character and terms of providing such an opportunity are defined by agreement between interested states.

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[86] Status of Multilateral Arms Regulation and Disarmament Agreements, United Nations, New York, 1988, pp. 32-37.

For the same purpose the states parties to the Treaty have agreed to inform, to the maximum possible and practicable extent, the UN Secretary General and also the public and the international scientific community about the character, progress, places and results of activities related to the exploration and use of outer space.

The Convention on Registration of Objects Launched into Outer Space[87] was signed to develop the above provision of the Treaty. It has established a system of mandatory records of data about each object launched into orbit around the Earth or farther into outer space entered in a corresponding register filled out by each state launching the object. The state in question should inform the UN Secretary General about the establishment of such a register. The contents of and procedure for keeping the national register are specified by the state of registration itself. In the Soviet Union, this register is kept by the USSR Academy of Sciences.

Besides, the state that has registered an object (with respect to each object there may be only one such state, in case of joint launching the states must determine which one of them should register the object), should submit to the UN Secretary General in the shortest practically possible time information about each space object entered into its register. This information is entered by the UN Secretary General into a register, full and open access to which is ensured. The relevant information should contain a certain minimum of data, including the name of the state or states launching the object, the corresponding symbol or registration number of the space object, the date, territory or site of the launch, the main parameters of the orbit and the general purpose of the space object. States may, if they wish to do so, submit additional information about such objects.

Registration data are published by the UN Secretariat as its official documents. The Soviet Union regularly submits to the UN Secretary data about objects launched by it into orbit around the Earth or farther into outer space.

The 1967 Treaty on outer space does not provide for establishing any control mechanism, which is sometimes regarded as its main drawback. Yet this drawback can be removed rather easily. If any participating state may wish to raise the question of establishing a control mechanism, it has every right to do so by making an amendment to the Treaty in accordance with Art. XV. It is quite possible that an additional protocol to the Treaty may be suggested for elaboration and approval. There are some precedents as regards other agreements, such as the Conventional on Biological Weapons.

Of interest from the viewpoint of "space control" is also the control provisions of the *Agreement Governing the Activities of States on the Moon and Other Celestial Bodies*,[88] not signed by the Soviet Union for reasons other than control. Each state party to the Treaty has the right to make sure that the activities of other states parties in the exploration and use of the Moon are carried out in keeping with the Treaty. To this end, all the space equipment, installations, stations and other facilities on the Moon are open to other states parties which notify in advance, within reasonable time limits, of their planned visit. The state party may act independently, or

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87 A/Res/3235 (XXIX), Annex.

88 Status of Multilateral ..., pp. 142-150.

with full or partial assistance from any other state party, or through the mediation of relevant international procedures within the UN framework or in accordance with its Charter.

The Agreement says that a state party which has reason to believe that another state party does not fulfil the obligations imposed on it by the Agreement or violate the rights enjoyed by the state party in accordance with the Agreement may request to engage in consultations with this other state party. The state party to which such a request is addressed immediately starts such consultations. Any other state party may take part in such consultations if it requests to do so. A state taking part in such consultations shall seek a mutually acceptable settlement of any dispute and take into account the rights and interests of all states parties. Information about the results of these consultations is forwarded to the UN Secretary General who transmits it to all interested states parties.

If the consultations do not result in a mutually acceptable settlement with due account of the rights and interests of all states parties, the interested sides shall take all measures to settle the dispute by other peaceful means of their own choice in keeping with the circumstances and character of the dispute. Should any difficulty arise in connection with the beginning of such consultations, which obstructs a mutually acceptable settlement, any state party may request, in order to settle the dispute, the good offices of the UN Secretary General without the consent of the other party to the dispute. A state party which does not maintain diplomatic relations with the other interested state party takes part in such consultations at its own discretion, directly or through another state party or the UN Secretary General acting as intermediaries.

In keeping with the Agreement, its signatories shall inform, to the maximum possible and practicable degree, the UN Secretary General, and also the public and the international scientific community about their activities connected with the exploration and use of the Moon. Within the earliest possible period after the launching with respect to each expedition to the Moon information is made concerning the time, purpose, place of its execution and duration, orbit parameters, whereas information about the results, shall be presented following its completion.

In case manned or unmanned stations are established on the Moon, the UN Secretary General shall inform about the location and purpose of such stations.

Control measures are also provided for in the *Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques*,[89] whose draft was submitted to the Committee on Disarmament by its co-authors - the USSR and the USA.

The mechanism of verification of multilateral agreements to limit the military use of outer space is thus rather extensive and, contrary to a widespread opinion, quite potent. The problem, however, is that the potential of these agreements, has so far been used to the minimum. One of the reasons may be the fact that until recently no one has vigorously raised the problem of signing specific additional protocols with detailed control provisions as applied to this sphere, which is, undoubtedly, hard for verification, and also the problem of establishing, within the office of the UN Secretary General, relevant fact-finding mechanisms.

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[89] Ibid., pp.133-137.

The Soviet Union is consistently displaying initiative in its drive for the conclusion of international agreements preventing an arms race in outer space and attaches great importance to a comprehensive discussion of this problem, including adequate verification measures, at the UN General Assembly and to multilateral talks at the Conference on Disarmament.

At the 36th session of the UN General Assembly, the Soviet Union tabled a draft *Treaty on the Prohibition of the Stationing of Weapons of Any Kind in Outer Space.*[90] It pledged not to put into orbit around the Earth objects with weapons of any kind, not to install such weapons on celestial bodies and not to station them in any other way in outer space, including manned space shuttles of both the existing type and other types which may be developed by states parties in the future; not to encourage or incite any state, a group of states or an international organization to activities running counter to the above provisions; to use outer space in strict accordance with international law in the interest of maintaining international peace and security, developing international peace and mutual understanding; not to destroy, damage, disrupt the normal functioning and not to change the flight trajectory of the space objects of other states parties if the latter are put into orbit in strict compliance with the provisions of the Treaty.

A special article dealt with control measures with respect to compliance with these obligations. It referred to the use of national technical means of verification in keeping with the generally accepted norms of international law. Moreover, special emphasis was made on the obligation not to obstruct the national technical means of other states parties. It was also proposed that to facilitate the achievement of the aims and provisions of the Treaty its participants should, in case of necessity, consult each other, make inquiries and submit information in connection with such inquiries. No provision was made for any procedure for international verification, to say nothing of on-site inspection.

So, the set of control measures was not adequate to the radical aim of the proposed draft. Of course, this drawback could have easily been eliminated during the course of debates on the draft, but no talks were held.

In 1983, the Soviet Union made a proposal to go farther and agree on the total prohibition of the use of force in outer space and from space against the Earth. It submitted a relevant draft treaty to be considered at the 38th Session of the UN General Assembly.[91] The draft provided for a complete ban on the testing and deployment in outer space of any space-based weapons to destroy objects on the Earth, in the air and in outer space. Simultaneously, it suggested a radical solution to the problem of anti-satellite weapons, viz., to stop developing new systems and liquidate those already developed by states parties, to ban the testing and use for military purposes of manned spaceships.

Two articles of the draft dealing with control measures once again emphasized the use of national technical means of verification and consultations. Yet there was a new element: a provision saying that states parties, while consulting and cooperating with each other in dealing with any problem which may arise with respect to the aims of the Treaty or in connection with the fulfilment of its provisions, may also make use of relevant international procedures within

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[90] UN Doc. A/36/192.
[91] UN Doc. A/39/59.

the UN framework, including the good offices of a Consultative Committee made up of states parties.

It was specified that the Consultative Committee shall be convened by the depositary (the UN Secretary General) within one month after the receipt of a request from any state party to the Treaty and that any state party might nominate its representative on the Committee.

The verification system proposed in 1983 had thus changed only little as compared with the proposals made in 1981, yet that little change indicated greater, albeit still insufficient, attention to the international control procedure.

No less important was the fact that time one of the most essential provisions of the draft related to anti-satellite systems was backed up by concrete actions on the part of the Soviet Union. In August 1983, the USSR pledged unilaterally (this pledge is still effective) not to be the first to launch into outer space any type of anti-satellite weapons for as long as other states, including the USA, refrain from launching into outer space anti-satellite weapons of any type.

In the autumn of 1984, the USSR came forward with yet another initiative: it made a proposal to include in the agenda of the 39th Session of the UN General Assembly the question "Use of Outer Space Exclusively for Peaceful Purposes for the Benefit of Mankind".[92]

On March 12, 1985, the Soviet-American talks on nuclear and space weapons began. Of principal importance was the fact that the prevention of an arms race in outer space was an inalienable element of the agreed purposes and subject of the talks.

It should be noted here that beginning in March 1985 some essentially new elements gradually appeared in the Soviet Union's efforts to prevent an arms race in outer space. These efforts began to be exerted at three forums simultaneously: the talks on nuclear space weapons; in the Special Committee on the Prevention of an Arms Race in Outer Space, first set up on March 29, 1985, at the Conference on Disarmament; and at UN General Assembly sessions. On all these levels the routine backing of the Soviet principled position began to be changed for a creative search for a balance of interests, active discussion of different views and ideas, and concern displayed by the partners in the international dialogue within the UN framework, in the talks and the exchange of views at the Conference on Disarmament, where the powers of the said Committee are, unfortunately, still "analytical", rather than negotiative.

The Soviet position shifted to the urgent problem of pooling the efforts of states in the peaceful use of outer space and in the use of space technology for the benefit of the world community, this being mankind's problem calling for global agreements which would ensure effective prevention of an arms race in outer space, including control measures.

At the 40th Session of the UN General Assembly, which discussed the Soviet proposal "On International Cooperation in the Peaceful Exploration of Outer Space Under Conditions of Its Non-Militarization",[93] a proposal was made to set up a World Space Organization (WSO),

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[92] UN Doc. A/39/243.
[93] UN Doc. A/40/192.

to promote international cooperation in the peaceful exploration and use of outer space. It was believed that one of the most important tasks of its activities would be to promote, if necessary, verification of compliance with treaties already concluded or to be concluded to prevent an arms race in outer space.

The new political thinking underlying this non-confrontational broad approach to the problem was most vividly expressed in the Soviet Statement of January 15, 1986,[94] which proposed, among other things, that agreement on the prohibition of space strike weapons should be reached between the USSR and the USA as early as during the first stage of the implementation of the Soviet plan of complete nuclear disarmament, while during the second stage such an agreement should be reached on a multilateral basis, with the mandatory participation of the leading industrial powers. One of the key elements of the Statement was a declaration that in the nuclear-space age security could only be ensured for all, and only through nuclear disarmament and the prevention of a spillover of weapons to outer space.

In this context, note should be made of the letter of Nikolai Ryzhkov to the UN Secretary General concerning a three-stage programme of joint practical actions as regards the peaceful exploration of outer space for the period up to the year 2000.[95] Elaborating upon the idea of World Space Organization, the Head of the Soviet Government noted that the Soviet Union views it as a universal inter-state organization with its own Charter in the form of an international treaty; it should have a cooperation agreement with the United Nations and coordinate the implementation of specialized programmes. It was emphasized that the WSO should exert its efforts towards peaceful exploration of outer space and verification of compliance with future agreements on the prevention of an arms race in outer space. To this end, the WSO might first use the technical means of control provided by the space powers, and subsequently it might use its own means of control.

Although the idea of establishing a World Space Organization is not yet in its implementation stage, cooperation in the peaceful exploration of outer space (and this is what it should promote), has been given powerful impulse materializing in a number of bilateral agreements, including the Soviet-American one, in a lively dialogue concerning contracts on launching other countries's satellites by Soviet carrier missiles, and in the first visit, - in the summer of 1987, - by a group of foreign businessmen to Baikonur.

At UN General Assembly Sessions the world community has clearly expressed the will to keep outer space peaceful, to prevent an arms race there. This will is not shared by the United States alone, which stubbornly opposes multilateral talks on outer space. This position is the main reason still preventing the Conference on Disarmament from starting relevant talks and the Special Committee on Outer Space from searching for a solution to this problem through negotiations. Yet the clearly protracted analytical stage in the work of the Special Committee has produced analytical stage in the work of the Special Committee has produced some positive results. Most importantly, a concrete dialogue has begun on how to put up a barrier to a spillover of arms to outer space.

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[94] Pravda, January 15, 1986.
[95] UN Doc. A/41/470.

Addressing the Conference on Disarmament, the Soviet Foreign Minister emphasized:

> In our opinion, verification will have a particularly important role to play in preventing an arms race in space,[96]

And made a proposal on the establishment of a system of international control over the preservation of peaceful outer space.

At the 1987 session of the Conference on Disarmament the Soviet delegation submitted a proposal to begin, not waiting until a corresponding agreement on outer space is reached, the formation of a system of international control over the prevention of stationing weapons of any kind in outer space. The main purpose of this system would be to establish that objects launched and stationed in outer space are not weapons or do not carry weapons of any type.

In the opinion of the Soviet Union, the central part in such a system of control could be played by an International Space Inspectorate given by states parties the right of access with inspection purposes to any objects designed for launching and stationing in outer space.

In March 1988, the Soviet Union specified its proposal concerning the International Space Inspectorate by submitting a detailed memorandum to this effect.[97]

The idea of inspecting each space launch is rational and relatively easy to implement. There are not many spaceship launching sites in the world so far, and the presence of international inspectors there would be a reliable guarantee that objects launched into space are not weapons and do not carry weapons of any kind.

But the Soviet proposal goes farther. The memorandum says that to ensure a total ban on space weapons the verification measures effected through the International Space Inspectorate should include:

- timely transmission by the host state to representatives of the International Space Inspectorate of information about each forthcoming launch, including the date and time of the launch, the type of the launch vehicle, the parameters of the orbit and general information about the space object to be launched;

- permanent presence of inspection teams on all sites for launching space objects in order to inspect all such objects irrespective of their launch vehicles;

- the beginning of inspection, ... days before installing the object to be launched in outer space aboard a launch missile or any other launch vehicle;

- inspection, as agreed upon, of depots, industrial enterprises, laboratories and test centres;

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[96] Doc. of the Conference on Disarmament CD/PV. 428.
[97] Doc. of the Conference on Disarmament CD/817.

- checking of undeclared launched from undeclared launching sites by means of extraordinary on-site inspections.

The International Space Inspectorate would have permanent groups of inspectors on the space-vehicle launching sites of states parties, the list of whom would be agreed through negotiations.

According to the Soviet proposal, the system of control measures to prevent the stationing of any type of weapon in outer space would also include extraordinary inspections if an undeclared launch of a space object is suspected. Specifically, it is proposed that the International Space Inspectorate should decide on an extraordinary inspection to clarify a situation which might be considered unclear in connection with a suspected undeclared launch of a space object on the basis of a request from a state party which considers the explanation received insufficient.

In making this proposal, the Soviet Union emphasized that it believed that all states engaged in space activities would find themselves in an absolutely equal position, whereas constant observation by the inspectors would guarantee control reliability. Indeed, a space-vehicle launching site is a thing impossible to be concealed, so in this case the very technology makes control relatively easy and effective. Moreover, provision is made for an on-site inspection in case a launch from an undeclared launching site is suspected. In an extreme situation, in case of emergency, a check could be made on a satellite already launched from a parallel orbit of a special control satellite, as provided for by Variant A of the Canadian system PAXSAT.[98]

Of course, depending on the specifics of concrete agreements on the prevention of an arms race in outer space, the system of control, the structure of the International Space Inspectorate and the forms of its functioning could be developed and specified through negotiations.

The Soviet Union has made other proposals as well, showing its adherence to strict control over the prevention of and arms race in outer space. Specifically, a statement was made to the effect that should a total ban be imposed on space strike weapons, the Soviet Union was ready to extend inspections to depots, industrial enterprises, laboratories, test centre, etc. If a state does not intend to station weapons in outer space, it cannot have any reason to object to international inspection of its space activities.[99]

Addressing the Third Special Session of the UN General Assembly on Disarmament , Eduard Shevardnadze noted, among other things, that in the Soviet Union's opinion steps could be taken in pursuance of the idea advanced by France to set up an International Space Agency.

In perspective, it could become a component of an International Control Agency. The Soviet Union proposed that the Conference on Disarmament should start concrete talks on the

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[98] PAXSAT Concept. The Application of Space-Based Remote Sensing for Arms Control Verification, Verification Brochure No. 2, External Affairs, Canada, 1986.

[99] Vestnik of the USSR Ministry of Foreign Affairs, No. 12, July 1, 1988, pp. 17-22.

establishment of an International Space Watch Agency, including on soft- and hardware for its activities. The Soviet Union would be ready to consider the problem of launching the Agency's satellites by Soviet carrier missiles on mutually acceptable terms.

The USSR also declared readiness to consider positively the problem of giving over to a UN data base, as proposed by Finland, verification-related information coming from Soviet satellites used for commercial purposes.[100]

It is appropriate to mention here that the USSR Minister of Foreign Affairs, addressing the 44th Session of the UN General Assembly, backed up the "open skies" idea, proposed by the US President, and for his part proposed that land, the seas and oceans and other space be made open, too. "Only in this case," he said, "shall we achieve total openness and the required level of trust."[101] This large-scale approach to the problem is based on the firm conviction that control over the prevention of an arms race in outer space is quite practicable, that it may result from the political will to stop the arms race down on the earth and to prevent its spillover into outer space.

As this study was being completed, the USA did not yet respond to the new Soviet initiative. However, it is appreciated that during the Wyoming talks the USA announced its intentional to invite Soviet experts to inspect two research centres operating within the framework of the Star Wars programme. The United States plans to offer the group of Soviet technical experts to examine the laboratories in Los Angeles, New Mexico, and in San Juan-Capistrano, California.[102] If an understanding is reached on making the invitation (it was agreed that this matter would be considered at the Geneva talks), this would evidently be the first step towards and "open space".

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[100] Ibidem.

[101] Pravda, September 27, 1989.

[102] Pravda, September 28, 1989.

CHAPTER FOUR

VERIFYING THE ELIMINATION OF CHEMICAL WEAPONS

One of the priority goals of the Soviet Union in the disarmament process is to bring about the earliest signing of an international convention completely banning the development, production, storing, acquisition, transfer, and use of chemical weapons.

During the talks held in the framework of the Conference on Disarmament it has been noted that an agreed global ban on chemical weapons is the most promising area of multilateral disarmament where the international community has come close to this goal.

We believe that at present the prospect of a successful consummation of the talks, which have been going on 20 years now, has become clearly visible.

There are comparatively few problems today awaiting solution. Moreover, definite coordination and political and technical study have long been done with regard to each of them. And verification of compliance with the future convention is no exception. Though disagreements still exist here, in most cases they seem to be caused not by unwillingness to reach agreement on verification measures but by the difficulty of ensuring verification reliable enough to satisfy all the parties.

The differences over the verification issue have decreased at the Geneva talks on chemical weapons largely because the Soviet verification concept has been changed in general and with regard to banning chemical weapons in particular. The evolution of the Soviet stance on chemical weapons is especially obvious if we compare it with what the USSR proposed on that score in the late 1960s and in the 1970s.

In 1969, the Soviet Union together with a number of other socialist countries submitted at the 24th Session of the UN General Assembly the draft Convention on the Prohibition of the Development, Production and Stockpiling of Chemical and Bacteriological (Biological) Weapons and on the Destruction of Such Weapons.[103] Explaining the verification provisions of that Convention (Articles IV, V and VI), the authors of the draft pointed out that they did not think it possible to use international verification which would actually mean "involvement" of foreign personnel. In their opinion:

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[103] The Draft Convention on the Prohibition of the Development, Production and Stockpiling of Chemical and Bacteriological (Biological(Weapons and on the Destruction of Such Weapons was submitted by Bulgaria, the Byelorussian SSR, Czechoslovakia, Hungary, Mongolia, Poland, Romania, the Ukrainian SSR, and the Soviet Union (UN Doc. A/7655).

> The establishment of any system of verification or control to ascertain whether or not chemical weapons are being produced in any particular country is an extremely complicated matter and unfeasible in practice, bearing in mind the specific features of chemical and bacteriological substances, the production process of which for peaceful purposes does not differ essentially from the process of their production for military requirements.[104]

The authors thought it more practical and helpful if verification would be carried out by the governments themselves, which would take measures to ensure that no facility and no juridical or physical person would manufacture chemical weapons. The governments would be responsible for the observance of that provision. To increase its action, Article V envisaged that the states parties to the convention would take necessary measures at the earliest date to ban the development, manufacture and stockpiling of chemical weapons. Article VI contained an obligation for the signatories to consult each other and cooperate in solving problems that may arise in the course of the implementation of the Convention.

Though most of the UN member states, approving of the purpose of the convention, which was to eliminate chemical weapons totally and everywhere, decided at the 24th Session of the UN General Assembly to submit the draft of the socialist countries for the consideration of the Committee on Disarmament (Resolution 2603 B), several countries were of the opinion that it did not envisage effective guarantees that the commitments assumed under the convention would be duly observed.

When, beginning with 1971, the ban on chemical weapons began to be debated independently by the Committee on Disarmament, the USSR came up more than once with various proposals on ways of guaranteeing compliance with the future convention. In 1972, for instance, it suggested that the convention would give the UN Security Council a possibility to consider complaints,[105] and in June 1973 the socialist countries submitted to the Committee on Disarmament a working document (CCD/403), saying it was possible to supplement national verification with some international procedures. But all these and subsequent moves proved insufficient to bring so different positions closer together. On-site inspections still remained the core of the differences.[106]

The Soviet Union made yet another move to meet its partners in negotiations half way in June 1982 as it submitted at the Second Special Session of the UN General Assembly devoted to disarmament the main provisions of a convention banning the development, production and stockpiling of chemical weapons and providing for their destruction.[107] In that document the USSR for the first time envisaged a possibility of on-site inspections on a voluntary basis in case a violation of the convention would be suspected. For monitoring the destruction of the stockpiles of chemical weapons and the production of supertoxic chemical agents for permitted purpose, the draft convention went even farther, envisaging inspections on a regular basis.

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[104] See the speech by Soviet delegate A.A. Roshchin at the Committee on Disarmament on March 3, 1970 (Doc. CCD/PV. 454).

[105] Doc. CCD/361.

[106] For more detail on the Soviet stance on that issue in that period see speeches by V.L. Israelyan, Soviet delegate at the Committee on Disarmament, on March 31, 1981 (Doc. CD/PV. 119) and on March 25, 1982 (Doc. CD/PV. 166).

[107] UN Doc. A/S - 12/AC. 1/12.

The turn occurred in 1986, after the evolution of the Soviet stance was set forth in the statement made by Mikhail Gorbachev, General Secretary of the CPSU Central Committee, on January 15, 1986. The statement said, in particular:

> In the matter of banning chemical weapons, as in other disarmament matters, all participants in the talks must take a fresh view of things. I would like to make it perfectly clear that the Soviet Union is in favour of the earliest total destruction of those weapons and the industrial plant for their production. We are prepared to ensure timely notification of the location of plants producing chemical weapons and the cessation of such production , and are ready to start working out procedures for destroying the relevant industrial facilities, and also to proceed, soon after the convention enters into force, to destroy the stockpiles of chemical weapons. All these measures would be carried out under strict control, including international on-site inspection.[108]

Proceeding from this new stance, the Soviet delegation at the Conference on Disarmament in Geneva submitted in 1986 detailed proposals on the liquidation of the facilities producing chemical weapons and assuring through strict international control non-production of such weapons in commercial industry. A year later it placed on the negotiating table the proposals on announcing the location of the storages of chemical weapons, on verifiable and complete destruction of their stockpiles and, finally, on inspections at request.

As a result of active negotiations and a constructive contribution made at the Conference on Disarmament by a number of delegations, considerable progress has been made in agreeing not only the main approaches to verification issues but also to the principles that will make up the future verification mechanism.

Today, the participants in the talks have come to realize that, in keeping with the commitments formulated in Article I of the draft convention[109] the mechanism of a future convention should include:

declaration of the stockpiles of chemical weapons and their storing pending their complete destruction;
- declaration of chemical weapons producing facilities and their closure and non-functioning right until complete destruction;
- non-manufacture of chemical weapons at civilian facilities;
- production of banned chemicals for permitted purposes and at permitted facilities;
- prohibition of the development, production and acquisition of chemical weapons; verification of all kinds of suspicions of violation of the convention.

The provisions of the convention concerning the monitoring of *storages of chemical weapons*, where these weapons will be kept pending their destruction, may be regarded as practically agreed.

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[108] Doc. CD/649.

[109] Article I provides for obligations not to develop, not to produce nor acquire in any other way, not to stockpile, not to store and not to transfer chemical weapons to anyone; not to encourage activities banned under the convention, not to use chemical weapons, and not to conduct preparations for the use of chemical weapons; and also to destroy these weapons and their production facilities (See: Doc. CD/952).

According to the text of a special section devoted to control over the storages, each state party will submit within 30 days after the convention enters into force a declaration specifying the sites where chemical weapons are stored at the time of entry into force of the convention, on its national territory or other territory under its jurisdiction and control.

Such a declaration should name, in particular, the exact location of each storage site, its characteristics, the quantity and composition of chemical weapons, indicating the name of each chemical, the type and caliber of munitions, etc.

The state party undertakes to take measures within 30 days after the entry of the convention into force to close its chemical weapons storage facilities and prevent any movement of its chemical weapons, except their removal for destruction.

The draft determines the procedure of access to the storage facilities right after the convention enters into force for international on-site verification of the declarations of the stocks of chemical weapons, and ensures that they are not removed pending their destruction.

International monitoring of closed storage facilities will be based on a system of international inspection in combination with the use of instruments. International inspectors will be granted the right to verify the correctness of the declarations made and the closure of storage facilities, to instal instrumentation with its subsequent servicing, to be present during the removal of chemical weapons from a storage facility for destruction, to seal transport vehicles, etc. The functioning of the verification system will be based on cooperation between the inspectors and the host country, without which normal operation of the verification mechanism is inconceivable.

For the first time during the talks the sides agreed on a procedure of using monitoring (including remote monitoring) instruments, with the data thus obtained to be sent from a facility to an international body. In the opinion of the Soviet side, such instruments should operate strictly in keeping with their agreed purpose and be therefore directed inside an inspected facility.

At the recent sessions of the Conference on Disarmament the sides have elaborated provisions concerning *verification of destruction of chemical weapons producing facilities*. They resemble in many ways the provisions on monitoring the storages of chemical weapons and, in fact, mean international sequestration of the stockpiles of chemical weapons and the facilities producing them. This approach is quite logical since in both cases it concerns closed and non-functioning facilities. At the same time, the monitoring of chemical weapons producing facilities will ultimately become more differentiated, for it will cover a greater number of variants and specific situations than what is envisaged for the storage of chemical weapons.

At present, further elaboration of verification provisions regarding the facilities is impeded to some extent by the unresolved problems concerning measures aimed at the destruction of these facilities. At the same time, the progress attained at the session of the Conference on Disarmament during which the sides defined the term "chemical weapons producing facility", provides objective preconditions for speeding up the reaching of agreement on the mechanism of verification of the destruction of chemical weapons producing facilities.

Among the problems which have not yet been agreed upon at the talks, and the hardest ones at that, primarily those concerning the finding of an effective and adequate regime of verification, is the question of *non-production of chemical weapons at commercial facilities.* When the stockpiles of chemical weapons and their production facilities are eliminated, the problem of verification of non-production will have the main role to play in the entire mechanism of verification of compliance with the convention. The difficulty is that the stress should be not on prohibition measures (because it is unwise to try and stop progress in production for civilian, peaceful purposes), but on the verification and monitoring of quite legitimate activity in civilian chemical industry which is constantly developing. This difficulty places special demands also on the verification provisions of the future convention, which should not only meet the present-day requirements, but take due account of scientific and technological progress in future, so as to give the states parties a reliable guarantee at any time that chemical weapons are not produced.

The countries which have advanced chemical industries fear that the convention may put up obstacles in the way of normal operation of those industries, lead to disclosure of commercial secrets and of sensitive technical information which may be used to the prejudice of a producing facility or a state.

We believe that these apprehensions, even though they are not unfounded, are still largely exaggerated, especially if we know that the convention, having banned chemical weapons, will provide favourable conditions for the growth of cooperation in peaceful chemical industry. We agree with the points of view expressed at the Conference on Disarmament that attention must be paid to studying practical ways of protecting the confidentiality of information on definite facilities, information that would be submitted to the Technical Secretariat, causing, naturally, no harm to an effective implementation of the future convention. Besides, the International Conference of Government and Industrial Representatives Against Chemical Weapons, held in Canberra in September 1989, proved useful for studying this question.

It is quite important also that when solving the non-production problem one has to deal with private and state forms of ownership. In other words, the difference in the social systems of the states involved has a direct bearing on the matter. Evidently this accounts, above all, for the difficulty of arriving at a generally acceptable solution with regard to chemical agents listed in Supplement I of the draft convention. As is known, the USSR suggests that all permitted production of such agents be concentrated at one specialized facility for each state party.

At present, many provisions on verifying the activities of a large specialized facility producing super-toxic lethal chemicals for permitted purposes, - chemical warfare agents and other chemicals included in Schedule 1, - have already been agreed.

Verification provisions have been elaborated in detail with regard to the production of Schedule 2 chemicals, that is, key precursors which would be subject to declaration and systematic international verification. The USSR proposes that a threshold of one ton a year be imposed. This means that all facilities (plants), with a production capacity exceeding one ton a year would be subject to declaration and systematic international verification.

An understanding has already been reached at the talks, envisaging an initial visit to declared facilities (plants), to get acquainted with them, check the correctness of the declared data

(the production capacity, the chemicals produced, the characteristics of the plants, etc.), and determining the procedures of monitoring these facilities. According to the Soviet proposal, the frequency of inspections (from one to five inspections annually), will be determined by an international inspectorate considering the characteristics of the producing plants.

We believe that this capacity threshold, combined with a ceiling on the number of inspections, would be most advisable from the point of view of balance between effectiveness of verification, on the one hand, and its non-intrusiveness, on the other. We take into account also other opinions.

A similar approach could be applied to chemicals in Schedule 4 (super-toxic lethal chemicals which are not warfare agents).

In our opinion, a well thought-out use of the experience of the verification mechanism of the Treaty on the Non-Proliferation of Nuclear Weapons, - the system of IAEA safeguards, - could help speed up the elaboration of provisions concerning verification of the non-production of chemical weapons at civilian industrial facilities. Such an approach is reasonable because in both cases there will be inspection and verification of the non-use of civilian (commercial) facilities and their production for creating weapons. True the IAEA verification mechanism does not envisage so-called inspections on challenge. But it is possible, no doubt, to use the IAEA practice, as it is proposed by the Soviet Union, in what regard various systematic inspections (usual, special, etc.), the frequency and timing of inspections, and the right to choose facilities subject to inspection at a given time.

The IAEA practice could prompt useful ideas of using various technical devices and instruments for verification: singling out at a facility places that could be "significant" for verification, the sealing of some units, installations of cine and photo cameras and measuring instruments in the agreed parts of the technological process, the servicing of international verification instruments by international inspectors, and so on.

It would be useful, in our view, to take into account the IAEA experience also in making decisions on the activities of a future international inspectorate (appointment of inspectors, their privileges, the order of conducting inspections, etc.).

In order to solve these problems, it would be advisable to elaborate a model agreement, as it was done by the IAEA. In accordance with such a model agreement, each state party would conclude with corresponding organ of the convention banning chemical weapons special agreements determining (in elaboration of the convention provisions) the order and procedures of verification at the facilities of such a state.

At it has been shown by the initial debate of proposals on using IAEA experience in a chemical weapons convention, this approach is productive.

Realizing how important it is to achieve an effective solution of the verification of non-production of chemical weapons for ensuring constant stability of the convention, the Soviet Union has come out for a verification system ruling out a possibility of producing and developing chemical warfare agents in commercial industry.

The Soviet experts, as they continue their work on methods of verifying non-production, have come to the conclusion that the best solution should be sought in a comprehensive method combining the uninterruptedness and non-intrusiveness of automatic control by instruments with the trustworthiness of the method of inspection, method which would be most economical during the establishment of verification system themselves, as well as during their discussion and metrological monitoring.

The Soviet Union favours a wide use of instrumentation, of registering devices, and of automation in systematic international verification. In the process, due account should be made of current scientific and technological achievements in the use of such instruments.

As the negotiations go on, the question of instruments has acquired a new dimension. It is no longer a question of using isolated and fairly simple instruments, but sophisticated systems with many components (including sensors, ancillary equipment, etc.), reliably protected from outside interference. The participants in the talks have already adopted a new standard for using such systems, envisaging, in particular, the application of remote observation instruments, including those with automatic transmission of signals through a communication system to an international organ.

It has been decided that at this stage such "remote" verification will be used for storages of chemical weapons and non-functioning facilities producing these weapons.

At the proposals of the USSR, the sides are studying the possibility of using it also for verifying the non-production of chemical weapons in commercial industry.

The Soviet experts suggest a method of uninterrupted sampling with centralized analysis as one of the promising methods of instrument verification of the non-production of chemical weapons at functioning commercial facilities, a method having the best combination of characteristics.

Thus, verification of the non-production of chemical weapons in commercial industry would be based on a combination of international inspection at a facility and the use of instruments. At the same time, the frequency and time of carrying out inspections at facilities, as well as the character and parameters of the instruments used, would be determined in the convention itself and in the agreements of states with an international body, remembering about the danger for the goals of the convention which may be caused by some or other concrete chemical or facility. Such an approach would make the entire verification system flexible, making it possible to take into account the entire variety of the situations arising in practice.

The Soviet Union regards with great respect the opinions and considerations of other states aimed at speeding up the drafting of the convention. We regard with interest the ideas suggested by Australia about so-called "stop-check" inspections (CD/698), and the ideas of the United Kingdom (CD/909), and of the FRG (CD/791 and CD/869), about special inspections. In our view, inspections could well be conducted by an international inspectorate when it considers them necessary for specifying ambiguous situations while carrying out systematic verification.

To speed up the drafting of the convention and find out whether its suggested verification provisions guarantee that civilian facilities would be used only for permitted purposes, the Soviet Union has proposed *conducting an experiment to test the procedures of systematic international verification of the non-production of chemical weapons in commercial industry.* This proposal was backed up at the Conference on Disarmament. After the consultations, held in September 1988, the document CD/CW/WP 213 has been prepared. The proposal it contains has been used for drawing up a scenario of conducting a national experiment in the USSR in December 1988 at the chemical plant producing key precursors in the city of Dzerzhinsk. The results of the experiment communicated to the participants in the Geneva talks in the document CD/894 lead to the following conclusion: the experiment has demonstrated that the verification provisions set forth in Supplement 2 to Article VI of the draft convention are practicable. The experiment has given rise to some problems as well, which must be solved. Among these are protection of confidential information, concrete methods of conducting inspections at various types of facilities and inspection by means of instruments.

The other 17 states which conducted national experiments last September have arrived at similar conclusions. Considering the positive experience gained so far, the Soviet Union is in favour on conducting an international experimental inspection. The USSR is prepared to invite to Dzerzhinsk foreign experts for joint work (on the basis of a coordinated approach), to specify the procedures of systematic verification to make sure finally that the verification measures envisaged in the future convention are practicable, effective and sufficient.

An international experiment would make it possible to test in practice what the states are now negotiating on paper and to make, if necessary, corrections ensuring effective, rapid and reliable international verification in keeping with the convention.

Today, a central issue at the talks on banning chemical weapons is "inspection on challenge". It runs all through the convention. The reaching of understanding on challenge inspection at the earliest date would lead the talks onto the last lap.

As for the Soviet Union, it favours most reliable inspections based on the recognition of the equal rights and obligations of the states parties to the convention without any discrimination with regard to the facilities and methods subject to inspection, without discrimination according to a system of ownership or a character of their relations with the government of a state party. Thus, the USSR deems it necessary to include in the convention a single universal regime of inspection on challenge.

In the opinion of the USSR, inspections on challenge must be mandatory, and so the states would have no right to refuse to carry them out. All the states parties to the convention should have equal rights and obligations with regard to making a request for inspection and satisfying it. To make such inspections really an effective instrument, the parties should be granted the right to request at any time the inspection of any facility and any location which are in the territory of a state party or are under its jurisdiction and control, and also facilities and locations belonging to any physical or juridical person of a state party anywhere, if there is suspicion of a violation of the convention there.

A request for inspection would contain necessary data indicating what provision of the convention has been violated, where and when a suspected violation has taken place, and the essence of the suspected violation, and would be addressed to the requesting state through the Technical Secretariat.

Besides, the procedures of inspections on challenge should be devised so as to rule out concealment by a state of the fact or consequences of violation of the convention. In particular, no more than 48 hours should pass between the moment a request is made and the arrival of an inspection team at the site to be inspected.

The convention should provide also for adequate regulations and methods of carrying out inspections on challenge. For instance, the instruments to be used in international inspections should be the same for all states parties, and their purpose should be strictly limited to the objectives of control over possible violations.

All measures aimed at protecting sensitive data during inspections should be elaborated in keeping with the principle of mandatory inspection, not against that principle. They should not weaken this principle, nor should they make any withdrawals from it.

In the opinion of the USSR and the majority of the participants in the talks, it would be expedient to contemplate measures on preventing an abuse of a request and the use of inspections for purposes inconsistent with the objectives of verification of compliance with the convention and for purposes of revealing information having nothing to do with chemical weapons.

The USSR has already begun an experiment to test the procedures of conducting inspections on challenge, during which a military depot was visited. The results of the first test inspection in May 1989 allowed to determine the main problems requiring technical study and to see the amount and content of work to be done at the subsequent stages of the experiment.

After that the Soviet Union plans to submit a corresponding document to the Conference on Disarmament. Meanwhile a parallel experiment to test the procedures of inspections on challenge at industrial facilities is being prepared in the Soviet Union.

The wide support the proposal enjoyed has had a positive effect on the negotiations, helping to bring nearer the positions of states and to expand the areas of agreement. The Soviet Union believes that the ideas suggested by Great Britain offer a sound basis for finding compromise solutions and should therefore be used primarily as the basis for understanding.

One of the chief elements of the British proposal is the idea of a possibility of alternative measures. This approach renders the entire systems of challenge inspection flexible and meets the general wish to make such inspections an effective means of preventing and detecting violations.

Alternative measures would not reduce the effectiveness of verification, because the final decision on whether to adopt them or still to demand inspection should, in the opinion of the USSR, be made by the requesting state. Besides, it has been proposed that the time for agreeing

to possible alternative measures should not be more than 48 hours (i.e., the time limit fixed in any case for the arrival of an inspection team at the site of inspection).

It must be noted that at present no one, in fact, objects to the idea of alternative measures. This marks important progress in the discussion of challenge inspections. At the same time, a number of countries express doubt about the practical applicability of alternative measures in some cases, in particular, in the case of suspicion that stocks of chemical weapons are concealed.

Possibly, to verify suspicions of a concealment of stocks (when full access will appear to be impossible), with the help of alternative measures would be most difficult but not hopeless. It is common knowledge that a specific feature of the stocks of chemical weapons is that they require regular servicing and monitoring of the state of munitions and containers with chemical agents, as well as preventive maintenance and safety measures. This accounts for the need to look for alternative measures.

In this context it would be possible to consider as alternative measures a monitoring of a suspected location from outside to detect activities associated with the servicing of chemical weapon stocks and the presence of protective systems ensuring normal work of the servicing personnel and protection of the environment. Air and sewage sampling along the perimeter of a facility and close to it may also provide definite information on the presence or absence of stocks of chemical weapons. One must not rule out also automatic sampling within storage facilities.

Possible alternative methods of inspection in cases of suspicion of concealed storing of chemical weapons and in relation to other events could be discussed in detail at the talks.

One of the elements of challenge inspections is the expediency of having an organ which would decide if some or other request for inspection and inspection itself are justified or not, that is, it would act as a kind of "filter".

There have been various suggestions as to which organ could serve as a "filter". The United States suggests, for instance, that requests should be considered by a fact-finding team comprising one representative from the USA, one from the USSR, and one from each of the three groups - Western, Eastern, and nonaligned (neutral) states. Some other states believe this role could be assumed by the Executive Council.

The USSR, as we have pointed out already, considers that this question is for the requesting state itself to decide. To entrust this job to the Executive Council would be, in the opinion of the USSR, inexpedient mainly because this would delay the carrying out of challenge inspections.

As we see it, the states which are in favour of giving the Executive Council the role of a "filter" or delegating these functions to a fact-finding team believe that these organs could prevent abuses of challenge inspections. The possibility of such abuses is, no doubt, the source of concern to each state, and the USSR is no exception. At the same time, having studied this matter closely, the Soviet Union has arrived at the conclusion that the existing danger must not be exaggerated.

In the first place, the opinion set forth by the United Kingdom in document CD/715 that "a right in the Convention to request an inspection on challenge might never have to be invoked", since the "States party would be strongly discouraged from considering acts in breach of the Convention because of the likelihood that the breach might be discovered by means of a challenge inspection." To this we might add that the discouraging role of challenge inspections would be the higher the more effective the procedure of carrying them out would be. In our view, any "filter" will inevitably detract from this effectiveness.

It is only natural that in carrying out inspections international inspectors should observe definite regulations. In fact, these regulations have already been formulated with regard to systematic inspections. Many of them could be extended also to inspections on challenge.

The main thing in the procedure of challenge inspections, as in all other elements of verification under the convention for that matter, is the demand for full equality of the contracting parties and absence of any discrimination. We proceed from the fact that the procedures of forwarding requests, of carrying out inspections and assessing their results, should place the Warsaw Treaty and NATO countries, like any other party to the convention, in an equal position giving them equal rights and opportunities.

The Soviet side notes with satisfaction that in recent time progress has been made at the Conference on Disarmament in elaborating the provisions concerning the appointment of inspectors for carrying out challenge inspections and in the study of reports made by the inspection teams carrying out such inspections. We would like to hope that this progress will make it possible to consider, already in the near future, the key issues of Article IX in the draft convention, which so far hold back agreement on this article.

A major aspect of the verification mechanism of the convention is verification of the obligation *not to develop chemical weapons*. The USSR believes that the convention should not only assure the destruction of the chemical weapons available today, but also prevent in future the appearance of their new and more dangerous varieties, which would be hardly verifiable as that. The convention should offer guarantees against the revival of this means of mass destruction. In our view, the regime of verification could be based on the procedures of timely detection and international analysis of newly synthesized chemicals which are dangerous from the point of view of the convention, and the already existing chemicals which can, as a result of scientific and technological discoveries, be made capable of being used for chemical weapons. Such a regime could provide for a system of declarations of synthesized chemicals and for setting up a special organ in the framework of the convention which watches the progress of chemical science and technology in the world from the point of view of compliance with the convention. It could provide also for creating an effective mechanism of revising a corresponding list of chemicals.

Of great significance would be the speediest elaboration in the context of the convention of a mechanism of *verification of the non-use of chemical weapons*. This question has never been considered in detail at the Conference on Disarmament, though some delegations have submitted working documents containing proposals on procedures of organizing verification of possible instances of the use of chemical weapons. In our view, these ideas deserve a close and attentive study.

The Soviet Union, for its part, is in favour of establishing a verification system making it possible to reveal timely and effectively any instances of the use of chemical weapons. Agreement on a future verification mechanism could be greatly facilitated by the experience already gained by the UN and the procedures of investigating reports on instances of using chemical, bacteriological (biological), and toxin weapons in violation of the 1925 Geneva Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare (these procedures are being currently elaborated by a group of consultants of the UN Secretary General in keeping with consensus resolution 42/370 of the General Assembly).

The Soviet Union, which is for strengthening the regime of the Geneva Protocol, already renders assistance to the UN Secretary General in the investigations of reports on a possible use of chemical and bacteriological weapons. In response to a corresponding request made by the UN Secretary General the Soviet Union has appointed its experts for taking part in investigations on the instances of the use of chemical and bacteriological weapons, and, when summoned, they are ready to go to the place of investigation without delay.

The Soviet Union also informed the Secretary General that it would be prepared in future to offer its laboratories for conducting analysis in investigating instances of the use of chemical and bacteriological weapons.

The USSR is interested in building an effective UN mechanism for rapid and impartial investigations of violations of the Geneva Protocol, in preventing its erosion, and in strengthening intolerance to the use of chemical weapons. It supports the proposals on using by the UN Secretary General the services of competent advisers whom he would appoint for accomplishing various tasks in the framework of the mechanism of investigating violations of the Geneva Protocol.

The Soviet Union is active in the work of the group of experts set up in compliance with resolution 42/37C to devise principles and procedures of organizing modern and effective investigation by the UN Secretary General of reports of a possible use of chemical weapons. The group is elaborating procedures related to the content of requests for investigation, the order of taking decisions by the Secretary General on sending missions of experts to collect and ascertain facts, etc. Such missions should, in the opinion of the Soviet side, be organized as soon as possible and arrive at a place of an incident not later than 48 hours.

The analysis of the technical aspects of investigations shows, in our opinion, that the reliability of their results will depend decisively on the competence of experts, on the technical level of the instruments they will use, on the presence of standard equipment for analysis in laboratories, and on the use of adequate analytical methods. In this connection it would be useful to establish under the UN auspices a system of sharing experience between the experts appointed by states and representatives of relevant laboratories.

On the whole, in our view, the work being done by the group shows that its efforts are instrumental in giving the UN verification functions with regard to multilateral agreements on arms limitation and disarmament, and it extends the UN's opportunities of keeping a close watch on the military situation in the regions of conflicts. The positive results received by the group

will no doubt help resolve quite a few major questions at the talks on the convention on the complete prohibition and destruction of chemical weapons.

Wishing to facilitate the earliest elaboration, agreeing, signing, and entry into force of the convention and, in particular, the practical solution of international verification problems, as well as the extension of openness in the area of chemical weapons, the Soviet Union submitted a Memorandum on *Multilateral Exchange of Data* to the Conference on Disarmament in February 1988.

Each state participating in the talks, it says, should offer, as an act of goodwill, information on its available stocks of chemical weapons (naming their approximate amount), the facilities producing them, the facts of former transfers or receipts of chemical weapons, and the technology and equipment used for their production.

In future, it would be desirable that each state taking part in the talks would report at an agreed time the number of the storages of chemical weapons and the facilities for their production, the laboratories for developing these weapons, the commercial facilities producing key precursors and double-purpose chemicals for peaceful, purposes, and so on.

Interesting proposals have been made in response. One such proposal was submitted by the FRG delegation (document CD/828). The USSR has expressed it's readiness to agree that the extent and order of the multilateral exchange of data it had proposed would be corrected with due account of other proposals, in particular, the above-mentioned FRG proposal envisaging declaration of the presence of chemical weapons on national and foreign territories, the total number of all the facilities which are supposed to be covered by the future convention in a given state, - the chemical weapons production facilities, storage facilities, the plants producing chemicals in Schedules 1, 2, 3, etc. - and also the names of chemicals produced for chemical weapons, the types of munitions and toxic agents, and the names of chemicals in Schedules 2 and 3 produced in commercial weapons. It seems very important that multilateral exchange of data would include declaration of the amount of chemical weapons, which is of special importance as a confidence-building measure and as a starting point in agreeing to a number of concrete provisions of the convention, including those concerning the order of destroying the stockpiles.

Multilateral exchange of data would not only facilitate the elaboration of the convention, but would also become in future a major component of the verification mechanism. As for the Soviet Union, it is completing the preparation of it's data compiled as it was suggested by the FRG, and will submit it to the Conference on Disarmament in the near future.

Soviet-American contacts have a great impact on the drafting of the convention. More than once the understandings reached between the two countries facilitated progress in these matters. During the eleventh round of the Soviet-American consultations, held in August 1989 in Geneva, the delegations elaborated the draft of a document on the procedures of inspection on challenge. Both delegations promise that the draft will soon be submitted for discussion at the multilateral talks.

The multilateral talks in Geneva can, in our opinion, be greatly influenced by the Soviet-American understanding on greater openness and on verification of the elimination of chemical

weapons reached at the meeting between USSR Foreign Minister Eduard Shevardnadze and US State Secretary James Baker in Jackson Hole, Wyoming, in September 1989. The memorandum of understanding with regard to a bilateral experiment in verification and an exchange of data, which they have signed, envisages that at the first stage the sides would exchange the general data on the military chemical potential of the two countries and conduct a series of visits to relevant military and civilian facilities on their territories. At the second stage the sides would exchange detailed information and allow on-site inspections to verify the accuracy of the data they would exchange.

Besides, an understanding has been reached: a. on mutual visits to observe the operations conducted by the other side to destroy chemical weapons and b. on the exchange of information on the past, present, and planned actions and procedures on the destruction of such weapons.

Without predicting the outcome of the multilateral talks in Geneva, we think there is reason to hope that, considering these new developments, the work on the remaining verification provisions of the draft convention will be speeded up and that, in this way, the complex problems hampering the signing of the convention will be solved.

CHAPTER FIVE

VERIFICATION OF THE REDUCTION OF ARMED FORCES AND CONVENTIONAL WEAPONS

The nuclear arms race and the race in other types of mass destruction weapons which began after World War II pushed into the background for some time the problem of reducing armed forces and conventional weapons. In the presence of the global threat of mankind's destruction, conventional disarmament seems to have lost its urgency because of the "admissibility" of the losses that may be incurred with the use of these types of weapons. Thus the nuclear arms race and, consequently, the priority need for nuclear disarmament, being in the focus of world public attention, provided favourable conditions for stockpiling and perfecting conventional arms. As a result, the development of conventional weapons reached an entirely new level - their power, accuracy, promptness of using, and range have increased. The destructive effects of a war with the use of conventional weapons are now practically comparable with the those of nuclear war. A war waged with the use of conventional weapons is ever less restrainable in terms of the gravity of consequences and the losses. It is gradually becoming ever more obvious that there can be no winners in it.

Real nuclear disarmament, which began after the entry into force of the INF Treaty, has clearly revealed the urgency of the conventional arms problem, placing it back among the priority objectives of disarmament.

The need for conventional disarmament is felt most keenly in Europe where two military-political alliances, - NATO and Warsaw Treaty, - with over three million servicemen and thousands of most up-to-date weapons confront each other. A war with the use of only conventional forces, if it is ever faught, may be fatal to Europe, considering the high density of its population, the presence of a large number of nuclear power plants, chemical factories, big hydroelectric stations and other facilities dangerous for the life of people, in case of their destruction. For this reason the significance and urgency of European talks are evident. However, no less evident is the fact that for other regions, too, conventional disarmament is on longer an abstract wish, - it is becoming vital necessity.

In Europe, as distinct from other regions, definite progress has been made in this sphere. The Vienna Talks on mutual reduction of armed forces and armaments in Central Europe lasted more than 15 years. At the Talks practical work was done to coordinate measures to reduce the armed forces and conventional arms, including verification measures.

The failure of the Talks was caused primarily by the conceptual differences between the Warsaw Treaty and NATO over the extent and character of reductions of the armed forces and armaments in Central Europe. Because the sides adhered to opposite positions on verification,

their differences over these matters attracted obviously excessive attention and were considered by many to have caused the disruption of an agreement. However, they were in fact a secondary problem and would most likely have been overcome, if an understanding on real reductions had been reached. This supposition looks sound to us, considering the USSR's principled approach to verifying the reduction of conventional weapons and armed forces, which envisaged a fairly broad series of measures, - exchange of the lists of military units to be reduced and withdrawn from a region, naming the units, their strength and stationing, and the number of the main types of armaments subject to reduction; exchange of information about the armed forces remaining after the reductions; the setting up of permanent points of entry to, and exits from, a region where any military contingents are reduced; and the carrying out of on-site inspections.

Though the Vienna talks on Central Europe have not resulted in the adoption of any specific document, the work done for so many years has not, in our opinion, been in vain. Many ideas on verification that were proposed and discussed there may prove helpful for the Vienna negotiations of the 23 on conventional arms in Europe, which began in the Spring of 1989.

Getting ready for the future talks already in June 1986, the USSR together with its allies advanced at the meeting of the Political Consultative Committee of the Warsaw Treaty a programme of reducing the armed forces and conventional weapons in Europe.[110] In that programme it spoke unambiguously in favour of reducing armed forces and conventional weapons under reliable and effective control with the use of both national technical means of verification and international procedures, including on-site inspections.

A major element of the concept of verification of conventional disarmament set forth in the programme was that, parallel with verification of the reduction process itself, it was suggested to monitor the entire activity of the troops remaining after the reductions.

It was also recognized expedient that, in order that the sides would carry out verification they should exchange at a fixed time the data on the total numerical strength of the land forces and the tactical strike air forces in the reduction zone and, separately, on that part of them which is subject to reduction and the part which will remain after the reduction. Subject to exchange would be the lists of the reduced military units mentioning their title, strength, location, and the number of the main agreed types of arms subject to reduction. Besides, the beginning and the end of reductions would be notified.

It was proposed that an international commission be set up for verification purposes, in which representatives of the NATO and Warsaw Treaty countries and also of the neutral, non-aligned and other countries concerned would take part.

Members of an international consultative commission could be invited for on-site verification of the reduction of armed forces and the reduction and storing of arms, which could be effected as appropriate. For this purpose, control posts comprising representatives of the international consultative commission would be set up at large railway junctions, airports, and ports.

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[110] The address of the Warsaw Treaty Member States to the Member States of NATO and All European Countries With a Programme of Reducing the Armed Forces and Armaments in Europe (Pravda, June 12, 1986).

The ideas of how to bring about a controllable reduction of military potentials, expressed in the programme, evoked great interest, and led to an enthusiastic discussion. The USSR has specified its stance with due account taken of the opinions voiced by the Western partners. During his visit to Poland in July 1988, Mikhail Gorbachev proposed a reduction of the armed forces and armaments in Europe in three stages.[111]

During the first stage all the revealed imbalances and asymmetries between NATO and the Warsaw Treaty, both in the numerical strength of the armed forces and in main armaments, would be eliminated. This approach would be applicable to the continent of Europe as a whole and also to its separate regions, as, for instance to Central Europe, Southern Europe, etc. To reveal imbalances and asymmetries, it was proposed to exchange the initial data in the amount dictated by an agreed subject to the talks. To avoid a repetition of the sad experience of the mere discussion of figures, which in the past caused a stalemate at the talks on Central Europe, provisions were made for a possibility to carry out, soon after the start of the talks, a thorough verification of this data, using on-site inspections when necessary.

At the second stage, proceeding from the levels that would be after the elimination of imbalances and asymmetries, the troops of NATO and the Warsaw Treaty would be reduced by another 500,000 on each side. The reductions would be conducted by disbanding army units with the simultaneous elimination of their armaments. The proposed form of armed forces reduction would provide far better conditions for verification, as compared with the reduction of the number of servicemen in individual units.

At the third stage the reduction could continue so as to render the army units of both military alliances totally defensive.

Effective verification, including on-site inspections, would be at all of the three stages of reduction.

This approach to disarmament in the area of conventional weapons in Europe and to verification of this reduction has been fully supported by the USSR's allies in the Warsaw Treaty Organization. The meeting of its Political Consultative Committee in July 1988 issued a Statement on the Talks on the Reduction of the Armed Forces and Conventional Weapons in Europe.[112] Special stress in the Statement was on verification and exchange of information.

The Warsaw Treaty countries have again proposed that a mutual exchange of verifiable initial data required for the talks be conducted to determine the ratio between the forces of the two military-political alliances and to reveal the imbalances and asymmetries in the armed forces and conventional weapons on a European and regional scale.

Envisaging the establishment of an effective system of verifying compliance with the agreements to be reached at the talks, the socialist countries have declared that it is advisable to use, apart from national technical means, international procedures, including on-site inspections

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[111] Speech by Mikhail Gorbachev in the Polish Sejm on July 11, 1988 (Izvestia, July 12, 1988).

[112] Statement by the Warsaw Treaty States on the Reduction of the Armed Forces and Conventional Weapons in Europe (Pravda, July 17, 1988).

without the right of refusal. They have suggested to establish entry and exit control posts along and inside the strips (zones), with a reduced level of armaments and in the reduction region (on railway stations, junctions, airports, and ports).

The socialist countries proposed also that verification should cover the reduction, elimination (dismantling), and storing of weapons and the disbandment of units, as well as the activities of the troops and numerical non-increase of the armed forces and armaments remaining after the reductions.

They have confirmed the idea of setting up an international control commission having wide powers, including surveillance, inspection, consideration of disputes, etc.

The constructive and far-reaching position of the USSR and its allies at the consultations of 23 member states of the Warsaw Treaty and NATO held in Vienna to agree to the mandate of the talks on the armed forces and conventional weapons in Europe from the Atlantic to the Urals made it possible to avoid a confrontation discussion on the set of verification problems and to arrive at a mutually acceptable formula, which says that the observance of the provisions of any agreement would be checked by means of a regime of effective and stringent verification which includes, among other things, on-site inspections and exchange of information.

According to that formula, the sides would exchange sufficiently detailed information to make possible a concrete comparison of the potentials of corresponding forces. The exchange of sufficiently detailed information will be conducted also for providing a basis for verification of compliance. The specific forms of verification and exchange of information, including the extent to which information should be detailed and the order of exchanging it would be agreed upon during the talks themselves.[113]

The first rounds of the talks of the 23 in Vienna give us hope that an agreement will be signed at the earliest date.[114] Because of the gap between the attitudes of the Warsaw Treaty and NATO towards the substance of the reduction measures has narrowed down, the talks now concentrate on coordinating, in practical terms, verification measures and on the exchange of information. Both sides have tabled their concrete proposals on that score. It is significant that their discussion is just as business-like as the discussion of other aspects of the future agreement. But, naturally, this business-like attitude does not in the least mean that there are no differences and difficulties. The sides do not agree in everything,[115] but the main thing is that the

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[113] The Mandate of the Talks on Conventional Armed Forces in Europe.

[114] In response to the statement by President George Bush (May 1989), that the USA was prepared to complete the drafting of an agreement within a period of 6 to 12 months, the Soviet Union proposed a convocation of a summit meeting in the latter half of 1990 to sign an agreement on conventional armed forces, which could be attended by the leaders of all European states, as well as those of the USA and Canada. To prepare the meeting, the foreign ministers of these countries could meet in Vienna early in 1990.

[115] The example of such differences is the proposals by the Warsaw Treaty countries not to include the air defence aircraft in the list of helicopters and planes subject to limitation, since this aircraft is incapable of hitting ground targets and therefore is not part of the surprise attack potential. That proposal is opposed by the NATO states referring, for instance, to the difficulties of monitoring aircraft in general and organizing control over air defence aircraft and its non-conversion into attack aircraft in particular. In the opinion of the Soviet Union, these difficulties can be overcome, because air defence planes have protective signs distinguishing them from the combat planes in their outward appearance, armament and equipment. The USSR is prepared to give Western experts an opportunity to see for

delegates of NATO and of the Warsaw Treaty do seek to produce an effective verification mechanism.

At present, the comparing of opinions on the agreement, so as to come to terms on its wording, is entering an active phase, and it is evidently too early to say now what its verification provisions will be like. Anyway, it seems to us that the general outlines of the future verification system are coming into focus.

The delegations at the talks are beginning to realize the need for verifying initial data and the very process of reducing the armed forces, including the elimination (conversion), of the weapons on which an agreement will be reached, the attainment of the ultimate levels, and the observance of an agreement during the entire term of its operation. This will be achieved through air and ground on-site inspections, without the right to refuse, and also by constant monitoring of armed forces reductions and elimination of armaments (including the stationing of permanent and temporary inspection teams in agreed points of entry into, and exit from, a region, at railway junctions, in ports, at air bases and in airfields), and by using national and multinational technical means of verification.

Due to its specifics and the diversity of types of weapons involved, verification of conventional disarmament in Europe will require, more than anything else, a proper combination in which various verification methods would complement each other, because each of them taken separately will hardly be able to satisfy the demand for adequate verification.

Possibly, new verification measures will be required for adequate control over conventional disarmament. One should not rule out such means as aerial photography and the use of aircraft with an early warning and observation system of the AWACS type, etc.

The regime of verification of compliance with multilateral agreements (this fully pertains also to European disarmament in the area of conventional weapons), considering that not all states possess up-to-date national technical means of verification, should be accessible for all states parties to an agreement. In this context special attention should be given, in our view, to various ideas of setting up verification agencies in which all participants would have equal opportunities and rights. In particular, the implementation of the Soviet proposal on establishing a Centre for Reducing Military Danger in Europe,[116] would help achieve equality. Such a centre could not only play a major part in confidence building and in providing greater security, in organizing an exchange of data required at the talks on conventional weapons reduction, but could also perform definite verification functions in the future.

Implementation of the US-Canadian idea of "open skies"[117] would be a useful addition to the future mechanism of verifying compliance with the Vienna accords. Verification conducted from aircraft is more reliable and cheaper than when this is done from satellites.

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themselves that this is really so. For instance, this can be verified by means of on-site inspections and appropriate notifications. Naturally, in this case the inspectors would be given free access to the aircraft and be allowed to examine the planes and their armaments.

[116] For more detail see: Chapter Six, Verification of Confidence- and Security-Building Measures in the Military Field.

[117] See also Chapter Seven, Openness in the Military Sphere -- a Factor of Effective Verification.

Besides, verification from the sky has a strong deterring effect because the trajectories of satellites, on the whole, are known beforehand, while the route of an aircraft, reported at short notice (from 2 to 6 hours), cannot, in fact, be predicted. The time passed since a notification is made and until the entry into the air space of a country should, on the one hand, be sufficient for the flight safety, for notifying the air-defence service of a country and opening an air corridor, and, on the other hand, this time limit should be short enough to avoid possible concealment of suspicious activities.

During the preliminary discussion by the USSR with the USA and Canada of ways of giving effect to the "open skies" idea the sides agreed on alloting for this purpose airfields on their territories, as well as in the Soviet Far East, from which such planes would take off. To provide equal conditions for all the potential parties to a future agreement, the USSR proposed that an aircraft pool be established and fitted out with required equipment to be used by all.[118]

At the same time it should be remembered that "open skies" is an independent subject for future discussion which exceeds the framework of the Vienna Talks and should therefore be worked upon independently and then agreed on by all the states concerned.

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[118] See the interview by Viktor, P. Karpov, Deputy Foreign Minister of the USSR, to the newspaper Izvestia (Izvestia, October 5, 1989).

CHAPTER SIX

VERIFICATION OF CONFIDENCE- AND SECURITY -BUILDING MEASURES IN THE MILITARY FIELD

The Soviet Union's attitude to monitoring confidence and security measures, in common with its approach to verification in general, has undergone considerable change. A long path has been traversed from the rejection of the need to verify confidence-building to the adoption at the 1986 Stockholm Conference on Confidence- and Security-Building Measures and Disarmament in Europe of on-site inspections, one of the most effective and strict methods of verification.

In conceptual terms, the evolution of the Soviet stance on this issue is caused, above all, by the changes in its assessment of the practical role of confidence and security measures. In the early 1980s, the USSR laid stress on measures of a political, declarative character, postponing their practical formulation for the future, whereas in recent years, it has been giving priority to militarily important confidence and security-building measures whose adoption without adequate monitoring of compliance would be as meaningless as disarmament without verification. To introduce such new thinking in real negotiating positions, the deep-rooted universal and uncompromising stereotype, according to which verification was made dependent only on practical disarmament, had to be discarded. The absolutization of that principle led to the denial of the need to agree on special forms of verifying confidence measures on the grounds that they do not bring about material disarmament, for they are directed at lessening military confrontation, easing tensions and preventing armed conflicts that may arise due to misunderstanding the intentions and military activities of the sides.

According to the Soviet stance at that time, each party to an agreement was free to verify, or not to verify, compliance by the other parties with their commitments by using national technical means. The USSR held that opinion at the time when the first generation of confidence-building measures were negotiated, measures which later were incorporated in the Helsinki Final Act. It would be fair to note that, for all their political significance as the first step towards military detente, those measures were limited from a purely military point of view. The Helsinki Final Act envisaged notification of only large-scale military exercises of land forces with a total strength exceeding 25,000 officers and men, conducted independently or jointly with any possible air-force or naval components. Invitation of observers to military exercises was voluntary and was to be done on a bilateral basis. So the vague and not always obligatory character of these measures acted as a restraining element in deciding the question of elaborating verification provisions.

The practice of applying the Helsinki generation of confidence-building measures has shown that their effectiveness and real results could have been far greater, should they be obligatory and verifiable. More often than not, the absence of agreed provisions on verification

served as a pretext for mutual accusations of the sides of failure to comply with their commitments, which, naturally, did not lead to confidence-building.

The understanding of the need to verify compliance with confidence-building measures was displayed already at the Madrid meeting of states participants in the Conference on Security and Cooperation in Europe (CSCE). In the Concluding Document adopted in 1983 they said that confidence and security-building measures in Europe, whose elaboration was entrusted to the Stockholm Conference, "will be of military significance and politically binding and will be provided with adequate forms of verification which correspond to their content."[119]

Of great significance was the fact that the Madrid mandate reaffirmed the principle of adequacy of verification and confidence-building measures. The Stockholm Conference confirmed further that such tying-in was well grounded and had a stimulating effect, - the more significant the measures are in military terms, the more stringent verification should be. The close inter-relationship between verification and confidence has made it possible to avoid the adoption of a mere set of measures envisaging a "transparency" of military activities.

As a result, the delegates at the conference worked out far-reaching confidence and security measures and, - for the first time in the practice of multilateral negotiations, - they formulated detailed provisions on verification, including on-site inspections, the rights and duties of inspectors, of the host country, and many other details.

The Concluding Document of the Stockholm Conference established, as it were, two types of verification of agreed measures: one is indirect and the other is direct.

In indirect verification one may include the use of national technical means of verification. Speaking about them, the participating states put it straight that they "can play a role in monitoring compliance with agreed confidence, - and security-building measures."[120]

Besides, the role of verifying the non-threatening character of military activities and checking that they are conducted in keeping with relevant notification provisions, is played by mandatory invitation of observers for definite types of notifiable military activities, - the starting level being 17,000 persons for military exercises and troop transfers, and 5,000 for amphibious or airborne landing.

On-site inspections became the main form of verification according to the Stockholm Document. The states parties have agreed that any of them would be allowed to forward a request for inspection to any other state party on whose territory, in the zone where confidence, - and security-building measures are used, there are doubts whether agreed measures are duly observed. It was pointed out that no stat party would be obliged to have in its territory more

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[119] The Concluding Document of the 1980 Madrid Conference of the States Participants in the Conference on Security and Cooperation in Europe based on the Final Act provisions pertaining to the actions taken after the Conference.

[120] The Document of the Stockholm Conference on Confidence, - and Security-Building Measures and Disarmament in Europe convened in accordance with the relevant provisions of the concluding document of the Madrid Meeting Within the Framework of the CSCE, Stockholm 1986.

than three inspections per calendar year and more than one inspection from one and the same state party.

To avoid a circumvention of this provision, when the states parties of one and the same military-political alliance, inspecting each other, would use up the fixed verification quota, thereby leaving other states no chance for verification, the Italian delegation on behalf of NATO, and the Hungarian delegation on behalf of the Warsaw Treaty, made interpreting statements, according to which the states parties of these alliances would undertake not to use the right of inspecting other countries which are parties to the same allied treaty.

The provision on inspection in the Document envisages an irrefutable right to carrying them out. The Document says unambiguously that a state party receiving a request would give a positive answer within an agreed span of time, but not later than 24 hours. Besides, no possible argument regarding the reasons for a request would block or delay an inspection, (a permit for inspectors's entry into the territory of the inspected state would be issued not later than 36 hours after a request would be made).

Another substantial element of the verification mechanism is the right to conduct inspections both on land and from the air, or by both methods.

Verification is made more effective also by a large amount of information provided in an agreed form to states parties with regard to each notified military activity, as well as by exchanging annual plans of military activities.

The using of the verification mechanism for three years now has shown that, despite some difficulties that confronted the verification mechanism of the Stockholm Document in the initial period, it well justifies its purpose. The very possibility of carrying out inspections objectively discourages the states from violating the agreed confidence, - and security-building measures.

The effective functioning of the verification system and the absence of gross violations of understandings provide a sound basis for improving the earlier agreed measures and devising at the negotiations of the 35 in Vienna a new generation of inter-complementary confidence-building and security measures. These could include coordination of limiting measures concerning the proportions and number of simultaneous exercises, their duration and frequency. At the same time it would be advisable to envisage limitations on the movement of troops and materiel, the number of alert exercises and the number of troops taking part in them; to refrain from conducting a series of large exercises designed after a common scenario; and to display restraint in military activities close to the borders of the states parties.

New confidence and security-building measures would cover also the activities of the air and naval forces, including notification as well as the monitoring and limitation of such activities in accordance with definite parameters.

Various aspects of military doctrines could be discussed and compared during the talks or in connection with them. An arms spending freeze or reduction could be considered as well.

Great attention should be paid at the talks to verification measures, to greater openness and predictability in military activities, and to the exchange of information. Such measures would include: regular exchange of data on the land force, the air force and the navy and on the schedules of providing them with new types of weapons and combat equipment and information about the structure of military budgets; refraining from the build-up of the armed forces and from establishing new military bases in foreign territories; setting up of observation posts in the zone where confidence and security-building measures are applied in agreed places; establishment of an urgent communication line among the countries concerned; improvement of conditions for inspections and provision of broader opportunities for the work of observers; the use of the most up-to-date technical means of verification, as, for instance, automatic transmitters and sensors; promotion of contact between political and military representatives of the states parties and expansion of exchange of military-diplomatic missions and visits by military delegations.

The setting up in Europe of a centre for reducing military danger and preventing a surprise attack would be an entirely new step in building up mutual confidence on the continent.

The functions of such a centre could be determined by the tasks of both confidence-building and strengthening security. At the beginning the centre could deal with the exchange of agreed information, including data on the armed forces and armaments, organize communication, and conduct consultations related to urgent clarification of situations causing apprehension and suspicion. In actual fact, the centre would coordinate the implementation of all military-political solutions which have already been reached or will be reached in the context of all-European tasks. As more progress is attained in accomplishing the tasks of confidence and security-building and disarmament, the centre could perform more and broader functions and in future it could be given verification powers as well with the consent of all parties. In any case, such a centre would concentrate vast information reflecting the real military-political situation in Europe, have a restraining effect on potential violators of agreements and give greater confidence in the reliability of partners.

The Soviet Union, naturally, is ready to consider any other possible proposals leading to greater confidence and security, to carry on this process in the conditions of effective control, for hardly anyone would argue that confidence may be based only on verifiable knowledge and that declarations of the absence of aggressive intentions would not be taken for granted.

CHAPTER SEVEN

OPENNESS IN THE MILITARY SPHERE A FACTOR OF EFFECTIVE VERIFICATION

In the previous chapters we have dealt with openness in military affairs, and with the effect of openness on some or other treaties and agreements. Nonetheless, we think it appropriate to deal with the subject of openness in the military sphere comprehensively, especially in the context of the rapid change in the Soviet stance and the first spectacular results achieved in this field. In doing so, we think it would be wrong if we confine ourselves to a purely expert analysis of the interrelationship of openness and verification with regard to the disarmament agreements already reached and those which may be reached in future. So, we shall try to look at the matter in the broader context of ensuring greater international security.

Addressing the 43rd session of the UN General Assembly, Eduard Shevardnadze, USSR Minister of Foreign Affairs, declared:

> By establishing new, previously inconceivable, rules of openness in the military sphere, the world is undoubtedly moving towards the creation of a common sovereign right, - the right to survive.
>
> When the United States Secretary of Defense sits at the controls of a top-secret Soviet bomber, and the Chief of the General Staff of the Soviet armed forces tours an equally secret United States base, that is something more than a mere exchange of protocol courtesies in the spirit of the times; it indicates that *the elimination of secrecy is becoming a factor of security.*
>
> We draw this conclusion from the conviction that, today, it is no longer possible to achieve political goals by means of war.[121]

The way to this seemingly simple and obvious truth was not easy. New thinking with regard to openness in military matters made its way here in the USSR through a number of obstacles posed by distrust, prejudices and stereotypes.

The system of protecting secrets, valid in the USSR today, had taken shape in difficult historical conditions. It was conceived in the years of the "intensification of the class struggle", a tragic time for the Soviet people, after a very brief period during which Soviet power began to display openness in international affairs, publish secret articles and supplements to the treaties signed by Tsarist Russia, making public a fairly detailed information on its own armed forces, including their equipment, structure, military spending, and so on. The natural need to protect the frontiers of the state from an outside armed attack and to maintain the stability of the state gradually degenerated into suspicion, spyscare and the cult of secrecy. World War II and the

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[121] UN Doc. A/43/PV. 6.

cold war that followed it added to the toughening of the protection of confidential information. After the superficial elimination, at the turn of the 1960s, of the most odious and archaic forms of misusing the institution of states and military secrets, the system of protecting secrets lagged increasingly behind the requirements of civilized international intercourse.

In that situation, the seeming military-political gains achieved due to secrecy were accompanied by real negative effects, causing distrust, confrontation, isolation, and consolidation of the "image of the enemy". Furthermore, the concealment of the bulk of information on military matters objectively hampered verification of compliance with agreements on disarmament and often led to decision making based on the "worst version".

The awareness of the vital need for greater openness in military affairs was most clearly felt as the sides set out to approach real disarmament in the course of the Soviet-American talks on nuclear and space weapons. The INF Treaty could hardly have been drafted and put into operation if both sides were not guided by a new approach to openness and reliable verification.

The development of the real disarmament process, while helping to overcome the "barrier of secrecy", - primarily between the Soviet Union and the United States and between the Warsaw Treaty and NATO, - has shown that a part of the way to openness should be traversed by all. And one should start with a realistic assessment of one's own actions. Not pose as a self-styled supreme judge of the world, but with respect for others combined with an objective and self-critical view on one's own society and policy, - this is what is so urgently needed in international relations today.

As for the Soviet Union, its course towards utmost openness in domestic and foreign affairs is not a temporary drive. It is a long-term policy meeting the interests of both the Soviet Union and its partners in the international arena.

The USSR wants to be correctly understood, so that it would be clear where it directs it's resources, what its plans are, and what the intentions and programmes of the USSR really are. The Soviet state declares for the whole world to hear: its foreign policy is determined more than ever by its domestic policy, by its desire to concentrate on developing and improving its country. That is why we need stable peace, disarmament, and predictability and constructiveness of international relations.

This idea was most clearly expressed at the First Congress of the People's Deputies of the USSR held in June 1989. The resolution passed by the Congress puts it straight that there is

> A need to provided reliable guarantees capable of ruling out undemocratic and secret decision making in foreign policy, when the decisions made are vital for the country and its people. In future such decisions shall be taken only after their discussion at the Supreme Soviet of the USSR, its committees and the commissions of its Houses; and more important ones, such as those related to allied relations and the signing of major treaties, shall be placed for the consideration of the Congress of People's Deputies of the USSR.[122]

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[122] Pravda, June 25, 1989.

This approach of the new Soviet Parliament elected in a free and democratic way and the fact that it place the entire international activities of the Soviet State on a legal basis is expected to create confidence among the Soviet people and among our partners abroad that actions like the sending of troops to Afghanistan or decisions like the modernization of intermediate-range missiles cannot be repeated. This is guaranteed by the fact that decision-making is being passed from a small number of persons to the representative bodies of people's power -- the Congress of People's Deputies and the Supreme Soviet of the USSR that it elects.

There is a great deal to be done to make openness a natural element of civilized international relations, so that it would not be regarded with suspicion and apprehension. What seemed incredible and was forbidden some time ago, is becoming almost a daily practice today. For instance, at the time of the sharp dispute between the USSR and the USA over the observance of the 1972 ABM Treaty by both countries, the arrival of a group of US Senators in the USSR in 1988 at the invitation of the Soviet Union to inspect the construction of the Krasnoyarsk radar station and the parts remaining from the radar stations dismantled at the Sary-Shagan test range, not only signalled the beginning of change to be followed by other actions,[123] but also demonstrated that openness facilitates verification of compliance with the agreements already signed and helps dispel concerns arising on both sides.

The Soviet Union has opened its nuclear test range near Semipalatinsk, giving US scientists a possibility to install seismic equipment there to verify on the spot the USSR's observance of its moratorium on nuclear explosions. A calibrating experiment with the use of underground nuclear explosions was carried out at the Soviet test range in the presence of American observers. And, finally, the joint Soviet-American verification experiment at the test ranges in Semipalatinsk and Nevada symbolizes openness and is a decisive condition of progress at the Soviet-American negotiations on an improved system of verification of compliance with the 1974 and 1976 treaties on the limitation of underground tests of nuclear weapons and on underground nuclear explosions for peaceful purposes.

The Soviet side invited the participants in the talks on chemical weapons to visit a Soviet military facility at Shikhany and see the typical samples of our chemical ammunitions and the technology of their destruction at a mobile destruction plant. The USSR was also going to invite also foreign experts to examine a chemical weapons destruction facility which was under construction in the city of Chapayevsk. However, meeting the demands of the local population which was concerned over the environmental situation in that region, the facility was closed.[124]

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[123] A delegation of the Armed Forces Committee of the House of Representatives headed by Les Espin, Chairman of the Committee, stayed in Moscow in August 1989. Among other things, they visited the base of strategic SS-11 missiles in the Ivanovo Region and examined a powerful laser in the town of Troitsk.

[124] The governmental commission, having examined the experimental facility for the destruction of chemical weapons near the town of Chapayevsk, arrived at the conclusion that the facility, which was ready for operation, was environmentally safe. When elaborating the technology of destroying chemical weapons, up-to-date scientific, technical and engineering ideas were used, ensuring a high level of reliability and safety in the destruction process. However, considering the extremely tense situation in the town of Chapayevsk, the commission found it impossible in August 1989 to put the facility into operation. So it was decided to convert it into a training centre for testing in inert media the technology of chemical weapons destruction and also for training personnel for work at future large facilities where such weapons will be destroyed.

As regards the reduction of the armed forces and conventional weapons, openness and broad exchange of information on the military potentials, above all between the Warsaw Treaty and NATO, should create a constructive atmosphere for negotiations. That was precisely the purpose of the information on the balance of forces between the Warsaw Treaty and NATO in Europe provided by the Warsaw Treaty member states in January 1988.[125]

A quite different political context for European disarmament has emerged as a result of the Soviet Union's decision, unilaterally, to reduce its armed forces by 500,000 officers and men and eliminate a large number of conventional weapons. All measures on the unilateral reduction of Soviet armed forces and armaments are carried out in conditions of openness, including the circulation of relevant information on the time limits set for these measures, giving world public opinion a chance to make sure that all the declared reductions are really being carried out. To that end, foreign observers will also be invited. This openness, in fact, is tantamount to a kind of public international verification.

Openness could play an important part also in a number of other areas of disarmament, as, for instance, in the limitation of the sales and deliveries of conventional arms. The Soviet Union, for its part, has backed up the idea of establishing a register of the sales and deliveries of conventional weapons at the United Nations and said it was ready to take part in elaborating its parameters.[126] The implementation of this proposal would make it possible, in our view, to set the stage for concluding an agreement, or agreements, on reducing the trade in arms, primarily from the point of view of ensuring effective verification.

The potential of openness is almost untapped in such an area as the non-use of scientific and technological break-throughs for peaceful purposes. The Soviet Union is of the opinion that without openness agreements on curbing the arms race in new areas, including, above all, the elaboration of verification measures, will be hard to reach. That is why the Soviet Union, advocating the widest possible dissemination of objective information on the arms race and disarmament, backed the proposal advanced by India at the 3rd Special Session of the UN General Assembly Devoted to Disarmament on forming at the UN General Secretariat a group dealing with evaluation and prognostication in the area of new technology, and at the 43rd Session of the UN General Assembly it voted for Resolution 43/77 A entitled "Scientific and Technological Developments and their Impact on International Security". Moreover, responding to the call expressed in the resolution, the Soviet Union set up a national team of experts in assessment and forecasting in the sphere of the military uses of scientific and technological achievements. The work of the team, which comprises outstanding Soviet scientists, will be done in close contact with the Committee of Soviet Scientists For Peace and Against the Nuclear Threat, headed by Academician Roald Sagdeyev.

Without openness verification of reductions of the military spending of states is in possible. Regular provision of agreed information on military spending, - this is the basis for

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[125] See: Statement by the Committee of the Defence Ministers of the Warsaw Treaty Member States "On the Ratio of the Numerical Strength of the Armed Forces and Armaments of the Warsaw Treaty Organization and the North Atlantic Alliance in Europe and the Adjacent Water Areas" (Pravda, January 30, 1989).

[126] See: Speech by the Deputy Foreign Minister of the USSR at the First Committee of the 43rd Session of the UN General Assembly (UN Doc. A/C. 1/43/PV. 4).

verification of observance of possible obligations of states on freezing or reducing defence budgets.

It must be admitted that this area of disarmament is confronted with certain difficulties. In the first place, the cardinal differences in the structure of the prices of weapons and the price-formation mechanisms of states belonging to different social and economic systems makes it difficult to compare their military spending properly. This is also true, though to a smaller extent, about countries belonging to the same system.

So, in order to compare expenditures and, therefore, to provide conditions for verification, unified parameters and the amount of granted information, as well as the methods of assessing them, are to be agreed upon.

The first step in that direction was made way back in 1978, when the 33rd Session of the UN General Assembly passed a resolution[127] instructing the UN Secretary General to check the work of the accountability mechanism with voluntary cooperation of states and to offer recommendations on ways of further improving and introducing the accountability mechanism. Such recommendations, submitted by the Secretary General at the 35th Session of the UN General Assembly,[128] made up the basis of the standard system of accountability recommended to the General Assembly to be used by the states beginning with 1981. Regrettably, the merits of such a standard system and the prospects opened up by its adoption for verification of compliance with future agreements on freezing or cutting back military spending were not appreciated at once in the Soviet Union, nor was it regarded here just as a major independent confidence-building measure. It was not until 1988 that the USSR passed a decision that in future, (beginning with 1990), when the USSR begins regular publication of data on it's defence spending, it will send relevant information to the United Nations in keeping with the requirements of the UN standard system.[129] Some delay in reporting the data is due to the fact that at present the USSR is carrying out a radical economic reform, including price-formation, which, when completed, is expected to bring us close to realistic comparison of data. A step in this direction was made as the information on the real defence spending in the USSR, as well as the date on Soviet spending on space programmes,[130] were announced at the session of the USSR Supreme Soviet in June 1,989 (previously only the budget of the Defence Ministry covering the expenditures on the maintance of the Army and Navy was made public).[131] The spending on Soviet space programmes was also made public.[132] The Soviet Union intends to

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127 Resolution 33/67 of the UN General Assembly.

128 See: Report of the UN Secretary General (UN Doc. A/35/479).

129 Resolution 35/142 B of the UN General Assembly recommended all states to adopt this mechanism and to report to the Secretary General annually their military spending in the latest fiscal year.

130 The article by Mikhail Gorbachev, "Reality and Guarantees of a Safe World", published on September 17, 1987, (it was circulated as a UN official document -- A/42/574), said: "The question of comparability of defence spending that needs further work. I believe that with due effort we will be able, in the next two or three years, to compare the figures that interest both us and our partners, figures that reflect each side's expenditure even-handedly."

131 The expenditures on space programmes amounted to merely 6,900 million roubles, including: - space exploration for economic and research purposes, 1,700 million roubles; - for military purposes, 3,900 million roubles; - on the space shuttle system "Buran", 1,300 million roubles. (See: Pravda, June 8, 1989).

132 In 1989 the total military spending of the USSR was 77,300 million roubles, including: - purchases of arms and materials, 32,600 million roubles; - on research and development, 15,300 million roubles; - on the maintenance of the army and navy, 20,200 million roubles; - on military development, 4,600 million roubles; - on pensions to retired

submit the first accountability report, drawn up on the basis of the UN accountability system, at the 45th Session of the UN General Assembly.

The Soviet Union sets great store by going over from individual measures on openness in international relations to a large-scale policy in this area which would become a major factor really promoting verification of compliance with agreements on disarmament and increasing the predictability of the actions of states as an element of progress in disarmament.

Now that the world has entered the epoch of priorities of common human values, life makes it imperative that usual stereotypes, outdated views, and illusions be discarded. One of such outgoing stereotypes is the division of states into "open" and "closed". Today, due to the scientific and technological revolution and the development of new means of verification revolution, it is hardly possible to preserve any "closed" societies, and in any case isolation from the world community is abnormal. The world is becoming a single organism, and no state, whatever it's social system, can develop normally outside it.

Considering the lessons of the past and the present realities, and looking boldly into the future, the Soviet Union, wishing to facilitate disarmament under effective control, has proposed the adoption of objective criteria and parameters to ensure openness.

In our view, the elaboration at the UN of a unified approach to openness would greatly stimulate constructive dialogue in every area of international security and provide a reliable basis for it. As a result, openness would become part of the new model of international security taking shape today. Moreover, we are convinced that openness and verification have a positive potential capable of competing successfully with military deterrence, nuclear deterrence above all. It is not hard to imagine the situation in future, when the functions performed today by nuclear deterrence will be passed on to transparent verificational deterrence.

The idea of "open skies" suggested by US President George Bush in May 1989 fits well into the verification deterrence concept. The Soviet Union has supported the idea[133] and said it was prepared to take part in an international conference on this subject At present, the preparations for the conference are under way. Its first stage was scheduled for February 1990. The Soviet Union together with its allies has begun to elaborate proposals on ways of implementing this idea.

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servicemen, 2,300 million roubles; - other expenditures, 2,300 million roubles. From the report by Nikolai Ryzhkov, Chairman of the USSR Council of Ministers, to the Congress of People's Deputies on June 7, 1989. (Ibidem).

[133] Addressing the 44th session of the UN General Assembly, USSR Foreign Minister Eduard Shevardnadze said: "In welcoming and supporting the initiative, the Soviet Union calls for the opening up of the lands, open seas and open space. Let us also have open lands, open seas and open space; only then shall we attain absolute transparency and a necessary level of confidence" (UN Doc. A/44/PV. 6).

CHAPTER EIGHT

ESTABLISHMENT OF A MECHANISM FOR INTERNATIONAL VERIFICATION

The ideas and proposals aimed at setting up a mechanism for international verification of compliance with agreements in the field of disarmament are not original. As it was noticed in the Introduction, they had been advanced for the first time by young Soviet Russia, were discussed in the context of total and complete disarmament in the post-war period, and were proposed by various states, particularly in the 1970s and 1980s, including the initiatives at all the three UN General Assembly Special Sessions Devoted to Disarmament.[134]

The interest in this issue and the prospects of the practical solution of the problem are determined to a substantial degree by the situation in disarmament. The periods when the possibility of reaching concrete agreements on curbing the arms race was becoming more tangible were marked by more lively discussions of problems associated with setting up an international verification agency.

Under the impact of the first steps in the direction of tangible disarmament, - of the real prospect of reaching an agreement on 50-per-cent cuts in the strategic offensive weapons of the Soviet Union and the United States, of the gradual progress made at the Soviet-American talks on nuclear weapons testing, and due to the prospects for completing the work in Geneva on drafting a convention on chemical arms and opening up new vistas for the reduction of conventional weapons, - the world community now often raises the issue of the expediency of, and the ways and means for, the establishment of a mechanism for the international verification of compliance with multilateral agreements in the field of disarmament.

At present, no state has provided a clear and unequivocal answer to these questions. However, the very fact that these issues are on the agenda shows a growing awareness of the need for supplementing bilateral efforts with a multilateral disarmament process and, consequently, for establishing a verification mechanism. Naturally, the desire for equitable participation in verification implies the assumption of obligation stemming from the provisions of a multilateral agreement on disarmament.

The idea of international verification appeals to most of the members of the world community also because it provides all potential participants in this agreement, whether the states concerned have their own verification facilities or not, with an objective source of information on compliance with the above-mentioned agreement by other parties.

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[134] See, for instance, the proposals by France: UN Doc. A/AC. 187/105, A/S-10/AC. 1/7, A/S-15/34; by Italy: UN Doc. A/S-12/AC. 1/19; and by Japan: UN Doc. A/S-12/AC. 1/43.

To a certain degree the elaboration of theoretical and practical aspects of international verification procedures stimulates multilateral disarmament and creates necessary preconditions for expediting the conclusion of particular agreements on disarmament. The International Atomic Energy Agency, which was entrusted with verification functions by the parties to the Non-Proliferation Treaty, can serve as an example of how the existence of a real organizational structure capable of performing verification functions facilitated the signing of the Treaty.

Despite the experience gained in multilateral verification and the contribution made by the UN and some states to the elaboration of it's specific aspects, this complex and multifaceted problem still awaits its elaboration. In our opinion, already at the present stage objective conditions are ripe for starting a discussion of the ideas and proposals associated with an international verification system, defining the basic goals and functions of a future mechanism and mapping out ways and means for its formation. In this undertaking, any research or any proposal should take into account the particular "sensitivity" and "delicacy" of this problem directly affecting national security issues. Moreover, it should also be remembered that international verification will inevitably involve the problem of the sovereign rights of states and require that they surrender some of these rights. Against this background the establishment of a mechanism for international verification can become a reality, provided due account is taken of the balance of the legitimate rights of all states and it is carried out with their consent and not to the detriment of the existing agreements but, on the contrary, for reaching further understandings on disarmament. And, of course, one should clearly realize that the elaboration and application of this mechanism takes a lot of time and that this problem cannot be solved at one go.

In this connection the misgivings that the mechanism of international verification can allegedly impose verification methods also in respect of the agreements already in force, without the consent of their signatories, seem "overcautious".

The Soviet stand on that issue in its general conceptual presentation was formulated in the article "The Realities and Guarantees of a Secure World" by Mikhail Gorbachev published on September 17, 1987,which says, in particular:

> It seems to us that with the aim of strengthening trust and mutual understanding under the UN auspices, it is possible to establish a mechanism for wide-ranging international verification of compliance with agreements aimed at reducing international tension and limiting armaments, and for monitoring the military situation in regions of conflict. The mechanism would operate by using various verification forms and methods for collecting information and its prompt submission to the UN. This would allow an objective picture of the events, bring to light, in good time, preparations for military action, making surprise attacks difficult, and take measures to prevent the development, expansion or intensification of a military conflict.[135]

As it has been already noted, the Soviet proposal on setting up a verification mechanism, under the UN auspices, was not groundless and did not emerge overnight. One can say that this idea was already in the air. Its evolution revealed common ground between practically all groups of states.

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[135] The text of the article was circulated as an official UN document (A/42/574).

Our examination of various ideas and proposals showing that in this field there is a tangible opportunity to find a necessary balance of interests of all countries led the USSR to submit a comprehensive working paper entitled "Establishment of an International Unification Mechanism under the Auspices of the United Nations"[136] at the 3rd Special Session of the UN General Assembly.

In presenting its vision of international verification to the world community the Soviet Union was far from rejecting the approaches and views of other states and claiming that its was the only correct position. On the contrary, the Soviet document was conceived rather as an invitation to an interested and multilateral discussion and a broad international dialogue.

In our view, the beginning of the discussion on the establishment of a machinery for international verification under the UN auspices would also draw the attention of the world community to the solution of urgent verification problems and render the efforts in this field more purposeful.

The Soviet Union proposes evaluating the expediency of establishing an international verification agency (IVA), as an alternative to setting up an international verification system. The process which could ultimately result in the emergence of such an agency must be based on consensus decisions by all the states concerned and on the observance of international legal norms.

It should be emphasized that, in accordance with the Soviet document, the efforts to institute an international verification agency, far from ruling out the establishment of bilateral or multilateral systems to verify compliance with individual military and political agreements, presuppose the setting up of such an agency. The assertions that the Soviet approach is aimed at a total centralization of the verification machinery within the UN framework and fails to take into account possible negative practical and financial consequences are totally groundless.

The Soviet Union supposes that, when established, the agency would coordinate and, as appropriate, verify compliance with agreements and treaties on the specific aspects of the limitation and reduction of armament, with the consent of the member states, of course. It could be also entrusted with the task of verifying compliance with agreements on the relaxation of international tension. Another function of the agency could be monitoring the military situation in regions of conflicts, with a view to bringing to light, in good time, preparations for military actions, making surprise attacks difficult and taking measures to prevent the development, expansion or intensification of military conflicts.

The agency might be established as an integral part of the UN Secretariat or as an independent agency associated with the UN through a cooperation agreement. Cooperation agreements could be also concluded with other international organizations which have been established already, such as the IAEA (International Atomic Energy Agency), or with organizations which might be established by then, such as the World Space Organization (WSO).

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[136] See: UN Doc. A/S-15/AC. 1/15.

After the establishment of the international verification agency, its functions could be extended to include, in particular:

- Systematic gathering of information on all questions within its competence;
- Coordination of the activities of individual verification mechanisms, and subsequently, as appropriate, independent verification of compliance with treaties and agreements in force, both on the question of disarmament and on the reduction of international tension, with the consent of states parties, of course;
- Monitoring of the military situation in regions of conflict;
- On the basis of a comprehensive analysis of available information, preparation of conclusions to be transmitted to all states members of the agency for their consideration, and to the Secretary General, who under Article 99 of the United Nations Charter may, at his own discretion, bring to the attention of the Security Council any matter which may threaten the maintenance of international peace and security;
- Provision of operational links among all states members of the agency, and with United Nations headquarters;
- Consideration of requests by states for technical and experts services aimed at ensuring effective verification of compliance with bilateral and regional agreements;
- Preparation of recommendations regarding verification procedures which may be included in future treaties and agreements.

The international verification agency would monitor compliance with these and other agreements already in force, with the consent of the states parties to such agreements. The role of the agency in monitoring future arrangements would be specified when such arrangements would be drawn up.

In performing its functions, the agency would, as necessary, use different forms, methods and means of monitoring and verification. It would carry out inspections and send fact-finding missions in the event of an outbreak, or the threat of an outbreak, of a conflict situation which undermined international peace and security. The agency would set up permanent or temporary supervision posts in areas of tension. In the end, it would have at its disposal the necessary technical means, including verification satellites, and also a staff of inspectors comprising specialists recommended by interested states. Individual states members of the agency could also provide it with appropriate information.

The organizational structure of the agency, including the composition of its administrative and operational organs, the precise definition of its relationship with the United Nations, particularly the Security Council and the Military Staff Committee and also the Secretary General, the settlement of administrative and budgetary questions and sources of funding will be gradually worked out in the course of international negotiations. Individual components of the future agency could begin to function as and when they were constituted, without waiting for the completion of the development of the entire international verification mechanism.

In order to assist the gradual process of establishing the agency, it is important to bring into play the individual elements of international verification already existing both in the sphere of lessening international tension and monitoring the military situation in conflict areas and in

the sphere of disarmament, and also to discuss in a constructive way proposals put forward on this score by different states.

The Soviet Union sees great usefulness in drawing on the wealth of experience accumulated by the IAEA in monitoring compliance with the Treaty on the Non-Proliferation of Nuclear Weapons. The scope of IAEA safeguards for states' activities in the sphere of nuclear energy must be even further expended.

The prototype of an international investigation mechanism already exists in the framework of the 1925 Geneva Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare and the 1972 Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction. Appropriate procedures could also be worked out for other multilateral treaties and agreements, including those already in force (for instance, the 1980 Convention on Prohibition or Restrictions on the Use of Certain Conventional Weapons Which May Be Deemed to Be Excessively Injurious or to Have Indiscriminate Effects).

It is important that efforts be directed at ensuring wider use of the United Nations capabilities for monitoring the military situation in areas of conflicts.

A multilateral centre operating under the UN Secretary General to assist in verification could serve as an organizational nucleus for establishing a mechanism of international verification. It could later become part of the agency or act in close contact with it.

The centre would be instructed to:

- formulate guiding principles of international verification;
- synthesize, analyse and systematize the experience of the United Nations and other international organizations in the area of verification;
- study the verification and confidence-building procedures operating within the framework of various treaties and agreements in order to determine the possibility of using them in future international legal instruments;
- at the request of states participating in negotiations on disarmament and the reduction of international tension, provide assistance in devising appropriate verification machinery;
- on instructions from the Secretary General, promptly send fact-finding and observer missions to regions of international conflict and tension;
- provide assistance, advisory and technical services in the area of verification to parties to bilateral and regional agreements, in some cases using the services of states possessing the appropriate expertise and technical facilities;
- help develop the cooperation of the United Nations with other international and regional organizations which perform verification functions.

The work of the centre would be carried out by competent experts sent by interested member states on the principles of equitable geographical representation. It would be advisable to establish a corps of United Nations observers (reserve of the Security Council and the Secretary General).

On the basis of the results of their missions, the experts would submit reports to the Secretary General, who, on the basis of their content, could in turn hold consultations with interested UN member states, circulate the text of the report to all of them, and also avail himself of his right to have recourse to the Security Council.

The establishment and subsequent effective functioning of the multilateral centre would be helped by the establishment, as proposed by Finland, of a United Nations data base to which information on disarmament and verification problems would be sent.[137]

States would voluntarily provide to the data base information on the general characteristics of their military activity; information on the whole range of issues accumulated by international and national research centres would also be provided. Information from states would be transmitted in accordance with agreed standardized formats.

In addition, the USSR is prepared to give favourable consideration to the question of providing the UN data base with certain information on verification received from Soviet satellites used for commercial purposes.

The Soviet Union has proposed that the Secretary General be instructed to determine the material resources needed for establishing the data base, and ways of making use of the existing technical capabilities of the United Nations for this purpose, and also the position of the data base within the structure of the United Nations.

In order to provide the international community with reliable and diverse information on compliance with multilateral treaties and agreements in the area of disarmament and the reduction of international tension, and also to monitor the military situation in areas of conflict, the Soviet Union believes it is possible, considering the idea put forward by France,[138] to establish an international space monitoring agency which in future would become an integral part of the international verification agency. The Soviet Union has proposed that the Conference on Disarmament be instructed to begin detailed negotiations on the establishment of an international space monitoring agency, including programming and material technical facilities for its work.[139]

The Soviet concept of wide-ranging verification in the form presented at the Third UN Session Devoted to Disarmament deliberately avoided a detailed description of the scheme and functioning of the future mechanism, its supervisory and working bodies and financing. Rather, it primarily dealt with the basic principles and functions, as well as the initial steps leading to the establishment of an international verification machinery.

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137 See: UN Doc. A/CN. 10/91.

138 In particular, with regard to setting up within the UN framework an agency for the processing and interpretation of space photographs (See: UN Doc. A/S-15/34).

139 Definite progress in the debate of this question was about to be made at the 1989 session of the Conference on Disarmament. The Soviet delegation specified its approach, having submitted a working document on setting up an international space observation agency (CD/OS/WP. 39, August 2, 1989). The position of France, which circulated the working document on space methods of verification, including proposals on processing pictures obtained by means of satellites was further elaborated (CD/945, August 1, 1989).

This approach was mostly due to the desire to rely, as much as possible, on the broad international consensus which began to take shape in recent years in the verification issues and to avoid its violation. Besides, this approach is based on clear understanding of the complexity, multifacetness and large scale of the goal and the realization of the need to approach this goal step by step, without skipping its stages, but displaying a flexible approach and respect for the views held by others, blended with one's own vision of the ultimate and intermediate goals. In advocating this approach the Soviet Union has never claimed that its formula is the only correct one and that no changes can be made in it.

On the contrary, as it has been already mentioned, the elaboration of effective control over disarmament implies an interested discussion of all constructive proposals. And there are quite a few of them. For instance, the idea of the "Group of Six" in respect of the establishment of a universal machinery for verification under the UN auspices.[140] In particular, the Stockholm Declaration adopted by them in January 1988 says that the suggested verification mechanism would be an inalienable element of strengthening the multilateral framework for ensuring peace and security during the disarmament process, as well as in a nuclear-free world.[141]

As it has been already noted, the formation and subsequent efficient functioning of an international verification machinery would be facilitated by the implementation of the proposal advance by Finland on setting up a UN data base on disarmament and verification problems, as well as the idea put forward by France to establish an international agency for verification satellites.

Interesting and promising ideas also emerge in the academic quarters, including those in the United States. For instance, the Washington Institute for Political Studies drafted a treaty on a comprehensive programme for universal security and complete disarmament providing for stage-by-stage disarmament and the establishment of an international verification mechanism comprising all necessary methods and forms, especially as regards on-site inspections.

Quite naturally, the concept of international verification has both supporters and critics. Here are typical comments:

1. The suggested mechanism is expected to cover at once several agreements on disarmament which, taking into account the specific of each of them, the need to ensure adequate verification and, consequently, to apply various verification methods and means, as well as the differences in the composition of the parties to these arrangements, will probably cause unsurmountable difficulties for decision-making, current activities, the gathering and dissemination of information etc.

2. The expenses involved in setting up an international organization for verification will be very high, an excessive burden on the UN budget at the time when the Organization is experiencing financial difficulties.

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[140] UN Doc. A/S-15/AC. 1/1.

[141] The Declaration was circulated as an official document of the Conference on Disarmament (See: CD/807).

It should be admitted that both considerations are fairly reasonable. For the implementation of the idea of setting up an international verification agency will involve a host of most complicated problems.

However, we believe there is no other way out because the internationalization of both the dialogue and the negotiation process is the reality of the world today. And a gradual, evolutionary approach based on the unequivocally expressed will of the sovereign states, an approach whose advocates we are, will allow, while duly taking into account the specifics of the agreements and identifying what is common in them, to remove organizational, legal, technical and other impediments associated with blending several verification mechanisms within the framework of one agency under the UN auspices.

As for the financial difficulties involved, rather substantial expenditures on the organization of efficient verification cannot be avoided under any circumstances, be it the establishment of an international agency or individual verification mechanisms for each agreement. It seems that the question is what form of such verification is preferable from the point of view of the "efficiency-input" ratio. Weighty arguments are adduced to the effect that one organization which would remove probable and even unavoidable overlapping and not necessarily be a "bureaucratic monster" gobbling up finances would be less costly than the creation of separate verification mechanisms. Regrettably, today we do not have any serious calculations allowing us to prove the cheapness of one and the expensiveness of another form of verification procedures.

At present, the important role which the UN is called upon to play in the process of multilateral disarmament and the organization of it's verification is being increasingly recognized. Ever since its 40th Session the General Assembly has been passing every year by a consensus a resolution on verification in all its aspects. The 1988 Session of the UN Disarmament Commission finalized the list of 16 verification principles[142],which in general opinion is a sound basis for the future work of the United Nations in this field. Though the UN Disarmament Commission failed to reach a consensus on the specific proposals regarding the role to be played by the UN in international verification, the exchange of views promoted greater awareness in the world community of the need for verification, including international verification. A logical display of this trend was the adoption by a consensus at the 43rd Session of the UN General Assembly of Resolution 43/81B on verification in all its aspects. The resolution entrusts the UN Secretary General with undertaking, with the help of competent government experts, an in-depth investigation of the role of the United Nations in the verification field with the following aims in view:

a. To define and examine the present activities of the United Nations in the field of verification of arms limitation and disarmament;
b. Evaluate the necessity of improving the present activities as well as to study and determine possible additional types of activities, taking into account organizational, technical, operational, legal and financial aspects;
c. Submit recommendations on future actions by the United Nations in this connection.

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[142] See: Special Report of the UN disarmament commission of the UN General Assembly at its third special session devoted to disarmament (UN Doc. A/S-15/3).

The Soviet Union is taking the most active part in the work done by this group and hopes that the research and recommendations by the group will be a tangible contribution to the mounting disarmament process, and in drawing more states into it and organizing an efficient multilateral verification system under the UN auspices.

The future implementation of the idea of international verification implies also the readiness of states to surrender a part of their sovereign rights to an international organization. The Soviet Union resolutely advocates the consolidation of national sovereignty. However, in this case reference is to a voluntary ceding of a part of one's right in common interests and, paradoxical as it may seem, for strengthening national security with a simultaneous consolidation of security for all.

The interdependence of events in the inter-related world makes it increasingly imperative to cede a part of national prerogatives to an international organization. Actually, this is what is happening now. Having overcome the "verification complex" and begun the process of real nuclear disarmament, the Soviet Union and the United States, the GDR and Czechoslovakia, Britain, the FRG, Italy, Belgium and the Netherlands have ceded a part of their rights when allowing the inspection of objects on their territories. That was done in the interests of general security.

In the interests of general security and in order to avert the use of chemical weapons, the UN member-states, by adopting by a consensus Resolutions 42/37C and 43/74A assumed if not a legal than moral obligation fully to cooperate with the UN Secretary General in the performance of his functions in investigating reports of alleged violations of the Geneva Protocol. This obligation is reaffirmed at the Paris Conference on the Prohibition of the Use of Chemical Weapons in January 1989.

The obligations assumed by the states participants in the Conference on Security and Cooperation in Europe at the Stockholm Conference on Security and Confidence-Building Measures and Disarmament in Europe which, among other things, provide for inspecting certain military activities, are also designed for meeting the interests of their mutual security.

Other instances when states voluntarily ceded some of their sovereign rights to international organizations in order to strengthen their mutual security, could be mentioned here. But the main point is not the number of examples but the fact that they bear out an increasingly obvious historical trend. In a word, verification, including its international forms, is no longer a preference but an imperative of out time.

CONCLUSION

Reviewing the Soviet approach to verification of the limitation, reduction and liquidation of armaments and armed forces, we wanted to show by concrete facts how the Soviet stance on verification has been changing under the impact of new political thinking and how as a result of this evolution, the verification problem, which often held back the conclusion of disarmament agreements, ceased to exist in political terms.

Today, there is every reason to believe that an international consensus on verification is taking shape. Briefly speaking, verification is beginning to be viewed as a factor of international security.

The first results, significant in military terms, which have been achieved in the area of disarmament and confidence and security-building measures have confirmed that reliable verification is important not only for monitoring compliance with some or other agreement, but also for going over to more substantial measures. Thus, the Soviet-American INF Treaty with its unprecedented verification mechanism is providing a basis for cardinal reductions of the strategic offensive arms of the Soviet Union and the United States and, in future, of other nuclear powers. At least from the technical point of view, the problem of verifying the elimination of nuclear arms, which has been moved from the area of theory into a practical area, is no longer insoluble.

Effective verification can be extended also to the non-proliferation of the arms race into outer space. Technical solutions and procedures ensuring non-deployment of weapons in space can be agreed upon. The Soviet proposals on that score are intended for a specific dialogue with all countries concerned. To be sure, the political will of our partners is required for starting such talks.

Considerable progress has been achieved at the Soviet-American talks on a stage-by-stage cessation of nuclear weapon tests. Agreement in this sphere was previously obstructed by differences in the approach to verification matters, whereas now the completion in the near future of the first stage of the Soviet-American talks on elaborating procedures for verifying the Soviet-American 1974 and 1976 Treaties on the limitation of underground nuclear weapon tests and on underground nuclear explosions for peaceful purposes may speed up the creation of a central mechanism for monitoring a complete and general cessation of nuclear weapon tests.

The outlines of a future convention on chemical weapons are coming into focus. The Soviet initiatives on establishing an effective verification mechanism for the convention, the measures of promoting openness, and unilateral steps to eliminate chemical weapons even before the convention is finally drafted, contribute, we think, to the progress of the talks and their earliest consummation.

The talks on conventional armed forces and confidence-building measures in Europe are in full swing in Vienna. The outlines of future accords, including corresponding verification provisions, are becoming visible already today.

Great hopes are pinned on the in-depth study of the role played in verification by the United Nations. The study is to be conducted by the UN Secretary General with help of a group of government experts. Ever more states come to realize that the United Nations could be more actively involved in the process of multilateral disarmament and in performing verification functions in this sphere. The forthcoming study is expected to give concrete answers to the difficult questions arising in this connection and to produce agreed recommendations on possible practical actions.

Verification today should be reliable, utmostly strict and effective, using most diverse methods, means and procedures ensuring confidence that armaments are being eliminated, that the obligations regarding the remaining arms and permitted military activity are observed, and that bans are not by-passed.

The objective demand is to make verification utmostly reliable and effective, but it is sometimes alleged that in the atmosphere of distrust still remaining in international relations one should not conclude agreements if any difficulties may arise in the process of verifying compliance with these agreements.

Such a selective and "maximalist" approach is wrong in our view. Politically, it is destructive, for it can often be used for justifying the continued arms race and avoidance of concluding practical agreements.

This approach is not constructive because, instead of objectively assessing the consequences of an agreement and it's guaranteed verification for the security of a state, the main stress in it is on technical or procedural difficulties of verification which, important as they are, still are derivatives from the disarmament provisions of an accord. This approach totally ignores the fact that the chief criterion of effectiveness and reliability of verification should be a guarantee that all violations jeopardizing the national security of a party to an agreement would inevitably be revealed. It is ignored also that the states parties, as a rule, envisage the setting up of a mechanism of consultations to settle this kind of problems and remove mutual concerns. The practice of verifying compliance with the INF Treaty is clear evidence of that. Fully satisfying the sides by its effectiveness, the verification mechanism of the INF Treaty did not at first regulate all procedural and technical aspects. Foreseeing a possible emergence of verification problems, the sides set up an ad hoc consultative commission for that purpose.

There is yet another aspect to this problem. The striving for effectiveness and reliability in verification should in no way lead to simplified decisions in regard to disarmament measures themselves, or to a refusal to extend them to some armaments or activities. In other words, it is unproductive to reject their adoption under the pretext of technical or procedural difficulty of monitoring some or other disarmament measures, (for instance measures concerning sea-launched cruise missiles with nuclear warheads).

The breakthrough to real disarmament with most diverse agreed forms of verification, including on-site inspections, has proved in practice that there are no more insurmountable barriers in the way to concluding far-reaching agreements on the reduction and elimination of arms. But, paradoxical as it may seem, today, when we have expressed unconditional readiness for any kind of verification, some of our partners begin to say that not all of the so-called "intrusive" measures of verification are acceptable to it, since a number of their military sites and facilities cannot be open for inspection by the USSR.

One outstretched hand is not enough for a handshake. Success can be achieved only by meeting each other halfway. Therefore the answers to the key questions of our time, including those concerning verification, will depend not only on our positive moves but also on how our partners in the international arena will be changing.

We believe that, despite all difficulties, objective or subjective, which still persist in organizing verification of compliance with treaties and agreements, the changes for reaching commonly acceptable solutions in this sphere are bigger today than ever before. The main encouraging thing here is the tendency clearly displayed by most states towards strengthening international security through disarmament, lowering the levels of military confrontation, and making military doctrines really defensive.

The process of implementing a realistic policy is under way, and the sides are giving up ideological clashes and the temptation to win propaganda victories. But this is not an easy process, for it is much harder to turn words into deeds than to turn deeds into words. Aware of it's responsibility, the Soviet Union is ready for such productive work.