CONFERENCE ON DISARMAMENT

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BASIC DOCUMENTS OF THE CONFERENCE ON DISARMAMENT RELATED TO THE PREVENTION OF AN ARMS RACE IN OUTER SPACE

Compilation prepared by the Secretariat

Symbol	Subject of the document
CD/476	Union of Soviet Socialist Republics: Draft Treaty on the Prohibition of the Use of Force in Outer Space and from Space Against the Earth
CD/579	China: "China's Basic Position on the Prevention of an Arms Race in Outer Space"
CD/584	Decision on the establishment of an Ad Hoc Committee on item 5 of the agenda entitled: "Prevention of an arms race in outer space"
CD/607 CD/OS/WP.3	Prevention of an Arms Race in Outer Space - Working Paper of a group of socialist countries
CD/611	Union of Soviet Socialist Republics: Reply of the General Secretary of the Central Committee of the Communist Party of the Soviet Union, Mr. Mikhail Gorbachev, to the Union of Concerned Scientists, published on 6 July 1985
CD/618 CD/OS/WP.6	Canada: "Survey of International Law Relevant to Arms Control and Outer Space"
CD/637*	United Kingdom of Great Britain and Northern Ireland: Principal international agreements, which apply or otherwise relate directly or indirectly to outer space
CD/639	Union of Soviet Socialist Republics: "The Basic Directions and Principles of International Cooperation in the Peaceful Exploration of Outer Space Under Conditions of Its Non-Militarization"

CD/641	Report of the Ad Hoc Committee on the Prevention of an Arms Race in Outer Space
CD/709/Rev.1 CD/OS/WP.13/Rev.1	Venezuela: Working Paper "Space Strike Weapons"
CD/716 CD/OS/WP.15	Canada: Working Paper "Terminology Relevant to Arms Control and Outer Space"
CD/726	Report of the Ad Hoc Committee on the Prevention of an Arms Race in Outer Space
CD/739	Argentina, India, Mexico and Sweden: Joint Statement urging the leaders of the Soviet Union and the United States to recommence comprehensive talks as soon as possible to prevent an arms race in space and terminate it on Earth and ultimately to eliminate nuclear arms everywhere
CD/773	Canada: Summary report of the Outer Space Workshop held in Montreal on 14-17 May 1987
CD/777	German Democratic Republic and the Mongolian People's Republic: Main Provisions of a Treaty on the Prohibition of Anti-Satellite Weapons and on Ways to Ensure the Immunity of Space Objects
CD/786	Report of the Ad Hoc Committee on the Prevention of an Arms Race in Outer Space
CD/816	Mandate for an Ad Hoc Committee under item 5 of the agenda of the Conference on Disarmament entitled "Prevention of an Arms Race in Outer Space"
CD/817 CD/OS/WP.19	Union of Soviet Socialist Republics: "Establishment of an International System of Verification of the Non-Deployment of Weapons of Any Kind in Outer Space"
CD/833	Special Report of the Ad Hoc Committee on the Prevention of an Arms Race in Outer Space
CD/851 CD/OS/WP.24	Venezuela: Proposed amendment to the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies
CD/870	Report of the Ad Hoc Committee on the Prevention of an Arms Race in Outer Space

CD/898	Mandate for an Ad Hoc Committee under item 5 of the agenda of the Conference on Disarmament entitled "Prevention of an Arms Race in Outer Space"
CD/905 CD/OS/WP.28	Mongolian People's Republic: "Review of Proposals and Initiatives of the States Members of the Conference on Disarmament Under Agenda Item 5, 'Prevention of an Arms Race in Outer Space' "
CD/908 CD/OS/WP.29	Venezuela: List of existing proposals on the prevention of an arms race in outer space
CD/908/Rev.1 CD/OS/WP.29/Rev.1	Venezuela: Updated list of existing proposals on the prevention of an arms race in outer space
CD/915 CD/OS/WP.32	Chile: Legal problems raised by the militarization of outer space
CD/927 CD/OS/WP.33	German Democratic Republic: "ASAT components and ways of verifying their prohibition"
CD/933 CD/OS/WP.34	German Democratic Republic, Bulgaria and Hungary: "Survey of International Law Relevant to Immunity and Protection of Objects in Space and to Other Basic Principles of Outer Space Activities"
CD/937 CD/OS/WP.35	France: "Prevention of an Arms Race in Outer Space: Proposals Concerning Monitoring and Verification and Satellite Immunity"
CD/939 CD/OS/WP.37	Peru: Proposal for Amendment of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies
CD/941 CD/OS/WP.38	Polish People's Republic: "Confidence-Building Measures Related to Item 5"
CD/945 CD/OS/WP.40	France: "Space in the Service of Verification: Proposal Concerning a Satellite Image Processing Agency"
CD/954	Report of the Ad Hoc Committee on the Prevention of an Arms Race in Outer Space
CD/976	Mandate for an Ad Hoc Committee under item 5 of the agenda of the Conference on Disarmament entitled "Prevention of an Arms Race in Outer Space"
CD/1015 CD/OS/WP.42	Argentina: Working Paper "Proposals for the strengthening of the regime established by the Convention on Registration of Objects Launched into Outer Space"

CD/1034	Report of the Ad Hoc Committee on the Prevention of an Arms Race in Outer Space (1990)
CD/1059	Mandate for and Ad Hoc Committee under item 5 of the agenda of the Conference on Disarmament entitled "Prevention of an Arms Race in Outer Space"
CD/1073	Canada: Compendia on Outer Space comprising plenary statements and working papers from the 1990 session of the Conference on Disarmament
CD/1087	United States of America: Statement delivered on 25 June 1991 by Ambassador David J. Smith, Chief United States Negotiator for the Defense and Space Talks, in the Ad Hoc Committee on Prevention of an Arms Race in Outer Space of the Conference on Disarmament
CD/1088	Canada: Arms Control Verification Occasional Paper No. 7, entitled "Satellites Harming Other Satellites"
CD/1092* CD/OS/WP.46*	France: Working Paper "Prevention of an Arms Race in Space: Confidence-Building Measures and Transparency"
CD/1105	Report of the Ad Hoc Committee on the Prevention of an Arms Race in Outer Space
CD/1125	Mandate for and Ad Hoc Committee under item 5 of the agenda of the Conference on Disarmament entitled "Prevention of and Arms Race in Outer Space"
CD/1165	Report of the Ad Hoc Committee on the Prevention of an Arms Race in Outer Space
CD/1217	Report of the Ad Hoc Committee on the Prevention of an Arms Race in Outer Space
CD/1271	Report of the Ad Hoc Committee on the Prevention of an Arms Race in Outer Space
CD/1487	Canada: Working Paper Concerning CD Action on Outer Space
CD/1569	Canada: Proposal Concerning CD Action on Outer Space
CD/1576*	China: Draft Decision on the re-establishment of an ad hoc committee on the prevention of an arms race in outer space and its mandate

CD/1606	China: "China's Position on and Suggestions for ways to Address the Issue of Prevention of an Arms Race in Outer Space at the Conference on Disarmament"
CD/1644	Russian Federation: Proposals concerning the Programme of Work of the Conference on Disarmament
CD/1645	China: "Possible Elements of the Future International Legal Instrument on the Prevention of the Weaponization of Outer Space"
CD/1679	China and the Russian Federation: "Possible Elements for a Future International Legal Agreement on the Prevention of the Deployment of Weapons in Outer Space, the Threat or use of Force Against Outer Space Objects"
CD/1680	United States of America: "Future Security In Space: Commercial, Military, and Arms Control Trade-Offs"
CD/1682 CD/1682/Corr.1	China: "Draft Decision on the Establishment of an Ad Hoc Committee on the Prevention of an Arms Race in Outer Space and its Mandate"
CD/1687	Russian Federation: Response by the Minister For Foreign Affairs of the Russian Federation, Igor Ivanov, to a question from the Russian media regarding the prevention of the deployment of weapons in outer space
CD/1710	Russian Federation: Development of an Initiative to Promote Openness and to Build Confidence in the Domain of Outer Space Activities
CD/1753*	China and the Russian Federation: Report of the International Conference on "Safeguarding Space Security: Prevention of An Arms Race In Outer Space" held from 21 to 22 March 2005 In Geneva
CD/1756*	Russian Federation: Summary of the 2nd open-ended informal meeting on the issue of the Prevention of an Arms Race in outer space held on 16 August 2005 in Geneva
CD/1769	China and the Russian Federation: Compilation of comments and suggestion to the working paper on PAROS contained in document CD/1679 dated 28 June 2002

CONFERENCE ON DISARMAMENT

CD/476
20 March 1984

ENGLISH
Original: RUSSIAN

LETTER DATED 20 MARCH 1984 ADDRESSED TO THE PRESIDENT OF THE CONFERENCE ON DISARMAMENT FROM THE REPRESENTATIVE OF THE UNION OF SOVIET SOCIALIST REPUBLICS, TRANSMITTING THE TEXT OF A DRAFT TREATY ON THE PROHIBITION OF THE USE OF FORCE IN OUTER SPACE AND FROM SPACE AGAINST THE EARTH.

20 March 1984

In accordance with the provisions of paragraph 6 of General Assembly resolution 38/70, of 15 December 1983, I submit herewith the text of a draft treaty on the prohibition of the use of force in outer space and from space against the Earth.

I request you to circulate this text as an official document of the Conference on Disarmament.

(Signed) V. Issraelyan

GE.84-61048

ANNEX

TREATY ON THE PROHIBITION OF THE USE OF FORCE IN OUTER SPACE AND FROM SPACE AGAINST THE EARTH

The States Parties to this Treaty,

Guided by the principle whereby Members of the United Nations shall refrain in their international relations from the threat or use of force in any manner inconsistent with the purposes of the United Nations,

Seeking to avert an arms race in outer space and thus to lessen the danger to mankind of the threat of nuclear war,

Desiring to contribute towards attainment of the goal whereby the exploration and utilization of outer space, including the Moon and other celestial bodies, would be carried out exclusively for peaceful purposes,

have agreed on the following:

Article 1

It is prohibited to resort to the use or threat of force in outer space and the atmosphere and on the Earth through the utilization, as instruments of destruction, of space objects in orbit around the Earth, on celestial bodies or stationed in space in any other manner.

It is further prohibited to resort to the use or threat of force against space objects in orbit around the Earth, on celestial bodies or stationed in outer space in any other manner.

Article 2

In accordance with the provisions of article 1, States Parties to this Treaty undertake:

1. Not to test or deploy by placing in orbit around the Earth or stationing on celestial bodies or in any other manner any space-based weapons for the destruction of objects on the Earth, in the atmosphere or in outer space.

2. Not to utilize space objects in orbit around the Earth, on celestial bodies or stationed in outer space in any other manner as means to destroy any targets on the Earth, in the atmosphere or in outer space.

3. Not to destroy, damage, disturb the normal functioning or change the flight trajectory of space objects of other States.

4. Not to test or create new anti-satellite systems and to destroy any anti-satellite systems that they may already have.

5. Not to test or use manned spacecraft for military, including anti-satellite, purposes.

Article 3

The State Parties to this Treaty agree not to assist, encourage or induce any State, group of States, international organization or natural or legal person to engage in activities prohibited by this Treaty.

Article 4

1. For the purpose of providing assurance of compliance with the provisions of this Treaty, each State Party shall use the national technical means of verification at its disposal in a manner consistent with generally recognized principles of international law.

2. Each State Party undertakes not to interfere with the national technical means of verification of other States Parties operating in accordance with paragraph 1 of this article.

Article 5

1. The States Parties to this Treaty undertake to consult and co-operate with each other in solving any problems that may arise in connection with the objectives of the Treaty or its implementation.

2. Consultations and co-operation as provided in paragraph 1 of this article may also be undertaken by having recourse to appropriate international procedures within the United Nations and in accordance with its Charter. Such recourse may include utilization of the services of the Consultative Committee of States Parties to the Treaty.

3. The Consultative Committee of States Parties to the Treaty shall be convened by the depositary within one month after the receipt of a request from any State Party to this Treaty. Any State Party may nominate a representative to serve on the Committee.

Article 6

Each State Party to this Treaty undertakes to adopt such internal measures as it may deem necessary to fulfil its constitutional requirements in order to prohibit or prevent the carrying out of any activity contrary to the provisions of this Treaty in any place whatever under its jurisdiction or control.

Article 7

Nothing in this Treaty shall affect the rights and obligations of States under the Charter of the United Nations.

Article 8

Any dispute which may arise in connection with the implementation of this Treaty shall be settled exclusively by peaceful means through recourse to the procedures provided for in the Charter of the United Nations.

Article 9

This Treaty shall be of unlimited duration.

Article 10

1. This Treaty shall be open to all States for signature at United Nations Headquarters in New York. Any State which does not sign this treaty before its entry into force in accordance with paragraph 3 of this article may accede to it at any time.

2. This Treaty shall be subject to ratification by signatory States. Instruments of ratification and accession shall be deposited with the Secretary-General of the United Nations.

3. This Treaty shall enter into force between the States which have deposited instruments of ratification upon the deposit with the Secretary-General of the United Nations of the fifth instrument of ratification, provided that such instruments have been deposited by the Union of Soviet Socialist Republics and the United States of America.

4. For States whose instruments of ratification or accession are deposited after the entry into force of this Treaty, it shall enter into force on the date of the deposit of their instruments of ratification or accession.

5. The Secretary-General of the United Nations shall promptly inform all signatory and acceding States of the date of each signature, the date of deposit of each instrument of ratification or accession, the date of entry into force of this Treaty as well as other notices.

Article 11

This Treaty, of which the Arabic, Chinese, English, French, Russian and Spanish texts are equally authentic, shall be deposited with the Secretary-General of the United Nations, who shall send duly certified copies thereof to the Governments of the signatory and acceding States.

CD/572
19 March 1985
ENGLISH
Original: CHINESE

CONFERENCE ON DISARMAMENT

China

Working Paper

China's Basic Position on the Prevention of an Arms Race in Outer Space

1. With the intensification of the development of anti-satellite and anti-ballistic missile weapons, the question of preventing an arms race in outer space is becoming ever more urgent. Resolution A/39/59 adopted at the thirty-ninth session of the United Nations General Assembly by an overwhelming majority with only one abstention fully reflects the grave concern and anxiety of the international community about an arms race in outer space.

2. Consistent with its stand against any arms race, China is opposed to an arms race in outer space. It holds that the exploration and use of outer space should in the interest of mankind serve to promote the economic, scientific and cultural development of all countries. China fully subscribes to the objective of "the non-militarization of outer space" and "the exclusive use of outer space for peaceful purposes."

3. In principle, "the non-militarization of outer space" requires both space weapons with actual lethal or destructive power and military satellites of all types be limited and prohibited.

4. In view of their complexities, the limitation and prohibition of military satellites may be left to be considered and resolved at an appropriate time in future.

5. At the present stage, the primary objective in the efforts to prevent an arms race in outer space should be "the de-weaponization of outer space", i.e. banning the development, testing, production, deployment and use of any space weapons and the thorough destruction of all space weapons.

6. The aforesaid space weapons should include all devices or installations either space-, land-, sea-, or atmosphere-based, which are designed to attack or damage spacecraft in outer space, or disrupt their normal functioning, or change their orbits; and all devices or installations based in space (including those based on the moon and other celestial bodies) which are designed to attack or damage objects in the atmosphere, or on land, or at sea, or disrupt their normal functioning.

7. While certain restrictions on the military activities in outer space have been provided by the existing international legal instruments regarding outer space, especially 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, these documents, however, because of their limited scope, are far from being adequate for the total prevention of an arms race in outer space. It is, therefore, necessary to undertake an analysis and examination of the major existing instruments, and to formulate new provisions and conclude new agreements.

8. The two Powers which possess the greatest space capabilities and are right now intensifying their efforts in the development and testing of space weapons bear special responsibilities for the prevention of an arms race in outer space. They should demonstrate genuine political will, conduct their bilateral negotiations in good faith and keep the Conference on Disarmament appropriately informed of the progress of the negotiations.

9. The prevention of an arms race in outer space is a priority agenda item of the Conference on Disarmament. As the single multilateral negotiating forum on disarmament, the Conference on Disarmament should establish a subsidiary body and undertake negotiations on this subject. The mandate of the subsidiary body should have a clear ultimate objective, i.e. the conclusion of an agreement or agreements; and at the same time, may include an exploratory stage to identify issues.

10. In order to create conditions and an atmosphere favourable for negotiations, all countries with space capabilities should refrain from developing, testing and deploying space weapons.

CONFERENCE ON DISARMAMENT

CD/584
1 April 1985
Original: ENGLISH

DECISION ON THE ESTABLISHMENT OF AN AD HOC COMMITTEE ON ITEM 5 OF THE AGENDA ENTITLED: "PREVENTION OF AN ARMS RACE IN OUTER SPACE"

In the exercise of its responsibilities as the multilateral disarmament negotiating forum in accordance with paragraph 120 of the Final Document of the First Special Session of the General Assembly devoted to Disarmament, the Conference on Disarmament decides to establish an Ad Hoc Committee under item 5 of its agenda entitled "Prevention of an arms race in outer space".

The Conference requests the Ad Hoc Committee, in discharging that responsibility, to examine, as a first step at this stage, through substantive and general consideration, issues relevant to the prevention of an arms race in outer space.

The Ad Hoc Committee will take into account all existing agreements, existing proposals and future initiatives and report on the progress of its work to the Conference on Disarmament before the end of its 1985 session.

GE.85-60922

CONFERENCE ON DISARMAMENT

CD/607
CD/OS/WP.3
5 July 1985
ENGLISH
Original: RUSSIAN

PREVENTION OF AN ARMS RACE IN OUTER SPACE

Working Paper of a group of socialist countries

1. The world has recently come to an extremely dangerous frontier: the arms race, which has reached unprecedented dimensions, is not only intensifying but also threatening to spread to outer space. The danger that space will become the springboard for aggression and war is increasingly real. Programmes are being carried out to develop space weapons that are intended to destroy objects in space and attack targets on Earth from space. These activities, which stem from calculations on achieving military superiority, are likely to make an arms race in space irreversible and seriously destabilize the situation, and they heighten the threat of nuclear war. The onset of an arms race in outer space will undermine the prospects for arms limitation and reduction as a whole. The militarization of space, if it cannot be halted, will swallow up enormous material and intellectual resources, thereby doing great damage to the peaceful development of mankind and the solution of pressing global problems, and create insurmountable obstacles to international co-operation in the peaceful use of outer space.

2. It is necessary to prevent this fatal course of events, and not to allow space to be turned into a source of military danger. The exclusion of space from the sphere of the arms race must be a strict norm in the policy of States, and a universally recognized international obligation.

3. The socialist States consider that strike weapons of any kind - conventional, nuclear, laser, particle-beam or any other form - whether in manned or unmanned systems should not be introduced into or stationed in space. Space weapons should not be developed, tested or deployed either for anti-missile defence, or as anti-satellite systems, or for use against targets on Earth or in the air. Such systems which have already been developed should be destroyed. In other words, the socialist States propose that agreement should be reached on the prohibition and elimination of an entire class of weapons, namely, attack space systems, including space-based anti-missile systems and anti-satellite systems.

4. Strict compliance with the indefinite 1972 Treaty on the Limitation of Anti-Ballistic-Missile Systems between the USSR and the United States is of particular significance for the prevention of the militarization of space.

The socialist States attach great importance to the absolute and strict implementation of multilateral agreements limiting the use of space for military purposes. These include the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space Including the Moon and Other Celestial Bodies of 1967, and the Treaty banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and under Water of 1963.

5. Given present developments, urgent measures must be taken to prevent an arms race in outer space. These measures may be worked out and adopted through both bilateral and multilateral negotiations. The socialist States consider that bilateral and multilateral negotiations complement each other.

6. The socialist States express satisfaction at the fact that the Conference on Disarmament was able to take the decision to set up an ad hoc committee on item 5 of its agenda, "Prevention of an arms race in outer space". They are ready to co-operate with the other States members in the implementation of the Ad Hoc Committee's mandate.

7. In the view of the socialist States, in carrying out its mandate the ad hoc committee should as a first step at this stage concentrate on examining the following issues:

(a) Political, military, economic and other consequences of the extension of the arms race into outer space.

(b) Significance of existing international agreements relating to the limitation of military activity in outer space for the prevention of an arms race in space.

(c) Proposals by States members of the Conference on Disarmament on the prevention of an arms race in outer space. Under this point, consideration should be given in particular to the proposals of the USSR on the conclusion of a treaty on the prohibition of the stationing of weapons of any kind in outer space (1981), the conclusion of a treaty on the prohibition of the use of force in outer space and from space against the Earth (1983) and on the use of outer space exclusively for peaceful purposes for the benefit of mankind.

8. The socialist States express the hope that the successful fulfilment of its mandate by the Ad Hoc Committee on the Prevention of an Arms Race in Outer Space will enable the Conference on Disarmament rapidly to embark upon negotiations on the conclusion of an agreement or agreements, as appropriate, for the prevention of an arms race in outer space in all its aspects, as it was recommended to do by the United Nations General Assembly. Only the guaranteed prevention of the militarization of space will make it possible to use space for creative rather than destructive purposes, and open the way for uniting the efforts of all States for the peaceful use of outer space.

CONFERENCE ON DISARMAMENT

CD/611
10 July 1985
ENGLISH
Original: RUSSIAN

LETTER DATED 9 JULY 1985 ADDRESSED TO THE PRESIDENT OF THE CONFERENCE ON DISARMAMENT FROM THE REPRESENTATIVE OF THE USSR TRANSMITTING THE TEXT OF THE REPLY OF THE GENERAL SECRETARY OF THE CENTRAL COMMITTEE OF THE COMMUNIST PARTY OF THE SOVIET UNION, Mr. MIKHAIL GORBACHEV, TO THE UNION OF CONCERNED SCIENTISTS, PUBLISHED ON 6 JULY 1985

I have the honour to transmit herewith the text of the reply by Mr. M.S. Gorbachev, General Secretary of the Central Committee of the CPSU, to a letter from the United States public organization "Union of Concerned Scientists", published on 6 July 1985.

I should be grateful if you could arrange to circulate this text as an official document of the Conference on Disarmament.

(Signed) V. ISSRAELYAN

GE.85-62351

OUTER SPACE MUST SERVE PEACE

Reply by Mr. M.S. Gorbachev to a letter from the Union of Concerned Scientists

Dear Mr. Kendall,

In reply to the letter sent by you on behalf of the Union of Concerned Scientists containing an appeal for the prohibition of space weapons, I wish to say that I feel profound respect for the opinions of eminent scientists who recognize more clearly than many others the dangerous consequences for mankind which the spread of the arms race to outer space and the transformation of outer space into an arena of military rivalry would entail.

The Union of Concerned Scientists rightly demands that a clear and irreversible political decision should be taken to prevent the militarization of outer space and leave it free for peaceful co-operation. The problem truly calls for a bold approach. Yesterday's yardsticks, narrow ideas about one-sided benefits and advantages - illusory in any case - will not do here. Now, as never before, what is needed is a far-sighted policy based on an understanding of realities and of the dangers we shall inevitably encounter tomorrow if those who can and must take the only right decision shirk their responsibility today.

On behalf of the Soviet leadership I should like to state in all certainty that the Soviet Union will not be the first to take weapons into outer space. We shall make every effort to persuade other countries too, and above all the United States of America, not to take such a fatal step, which would inevitably increase the threat of nuclear war and spur on an uncontrolled arms race in all directions.

With this goal in view, the Soviet Union, as you must surely know, has submitted a radical proposal in the United Nations - a draft treaty on the prohibition of the use of force in outer space and from space against the Earth. If the United States of America joined the overwhelming majority of States which have supported this initiativ the question of weapons in space could be closed once and for all.

At the Soviet Union-United States negotiations on nuclear and space arms in Genev we are endeavouring to reach agreement on a complete ban on the development, testing and deployment of strike systems in outer space. Such a ban would not only make it possible to preserve outer space for peaceful development, exploration and scientific discovery but also to embark upon a process of radical reduction and destruction of nuclear weapons.

More than once, we have also taken unilateral action intended to give the United States a good example. The moratorium placed by the Soviet Union on the stationing of anti-satellite weapons in outer space has now been in force for two year and will remain in force for as long as other States act in the same way. Our proposa that both parties should completely cease work on the development of new anti-satellit systems and that the systems which the USSR and the United States of America already possess, including those whose testing has not been completed, should be destroyed lie on the table in Washington. The actions of the United States side will very shortly show what solution the United States Administration is going to prefer.

Strategic stability and confidence would undoubtedly be strengthened if the United States of America together with the USSR agreed to reaffirm in binding form its commitment to the régime of the Treaty on the Limitation of Anti-Ballistic Missile Systems, which is of unlimited duration. The Soviet Union is not developing any space strike weapons, a large-scale anti-ballistic missile system or the basis for such a system; it is abiding strictly by its obligations under the Treaty both as a whole and in its several parts; and it is unswervingly observing the spirit and the letter of that most important document. We invite the United States leadership to join us in this matter and to renounce the plans being nurtured for the militarization of outer space, plans which will inevitably lead to the scrapping of that document, the key link in the entire process of nuclear arms limitation.

The USSR is proceeding from the belief that a practical solution of the problem of preventing an arms race in outer space and terminating it on Earth is possible provided both sides have the political will and a sincere desire to strive for that historic goal. The Soviet Union has that desire and that will.

I wish the Union of Concerned Scientists and all its members success in their noble activities in the cause of peace and progress.

Yours sincerely,

M. GORBACHEV

Pravda, 6 July 1985

CONFERENCE ON DISARMAMENT

CD/618
CD/OS/WP.6
23 July 1985
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CANADA

Working Paper

Survey of International Law Relevant to Arms Control and Outer Space

Table of Contents

	Page
Preface	1
I. Introduction	2
II. International Agreements	3
(i) Charter of the United Nations	4
(ii) Antarctic Treaty (1959)	6
(iii) Partial Test Ban Treaty (1963)	8
(iv) Outer Space Treaty (1967)	9
(v) Treaty of Tlatelolco (1967)	13
(vi) Rescue and Return Agreement (1968)	14
(vii) The Non-Proliferation Treaty (1968)	14
(viii) Seabed Treaty (1971)	14
(ix) Agreement on Measures to Reduce the Risk of Outbreak of Nuclear War (1971), Agreement on Measures to Improve the Direct Communications Links (1971), and Agreement on the Prevention of Nuclear War (1973)	15
(x) Convention on International Liability for Damage Caused by Space Objects (1972)	16
(xi) Biological Weapons Convention (1972)	17
(xii) ABM Treaty (1972)	17
(xiii) SALT I (1972) and SALT II (1979)	18

Table of Contents (continued)

		Page
(xiv)	Threshold Test Ban Treaty (1974) and PNE Treaty (1976)	19
(xv)	Registration Convention (1975)	20
(xvi)	Environmental Modification Convention (1977)	21
(xvii)	Moon Treaty (1979)	24
(xviii)	International Telecommunication Convention (1982)	26
III.	United Nations General Assembly Resolutions	27
IV.	Summary	31
V.	Conclusion	33
	Notes	34
	Annex 1: Status of Multilateral Agreements Relating to Outer Space	41

Preface

For a number of years prior to 1985, the Conference on Disarmament (CD) and its predecessor organizations have recognized the importance of outer space. It was, however, only on 29 March 1985 that the CD succeeded in reaching agreement on a mandate for an ad hoc Committee on the Prevention of an Arms Race in Outer Space. This development was welcomed by Canada and other member nations as a first step toward an organized examination of the subject. This process is in accordance with the United Nations General Assembly resolution which was adopted without dissent during its 39th session on December 12, 1984 and which called upon the CD to consider the question of preventing an arms race in outer space as a matter of priority. The mandate now adopted by the CD is a realistic one. It is neither narrow nor restricted but permits the CD to begin some action and undertake concrete work almost immediately.

The ad hoc Committee on the Prevention of an Arms Race in Outer Space established under the mandate, is "to examine, as a first step at this stage, through substantive and general consideration, issues relevant to the prevention of an arms race in outer space". In the process, it should take into account all existing agreements, existing proposals and future initiatives, then report on the progress of its work to the Conference on Disarmament in August, 1985.

From the Canadian perspective, the creation of the ad hoc Committee on outer space is in line with Canada's expressed policy and constitutes a significant step forward in coming to grips with the subject. The mandate of the ad hoc Committee both complements and accurately reflects the realities concerning the bilateral negotiations already underway between the United States and the Soviet Union in Geneva. It neither undermines, prejudges nor in any way interferes with those negotiations and this fact is considered by Canada to be absolutely central to the successful process of both sets of deliberations.

On 26 August 1982, Canada submitted its first substantive working paper to the CD on the outer space issue. That document entitled "Arms Control and Outer Space" (CD/320) undertook to discuss generally the subject of arms control and outer space in terms of stabilizing and destabilizing characteristics. With the establishment

of an ad hoc Committee to focus in more detail, Canada is prepared to reinforce its efforts and to participate actively and effectively in developing an understanding and consensus for further work relating to the subject of preventing an arms race in outer space.

This working paper is meant to facilitate consideration of this area by the CD by providing a basis for examining its legal context. In general, as a review of international law relating to arms control and outer space, it presents a broad interpretation of a variety of views concerning the significance and application of some of the existing treaties. It does not purport to provide a Canadian government position on any issue. Instead, in terms of the CD mandate relating to the prevention of an arms race in outer space, its objective is to provide a rational basis for discussion from which the ad hoc Committee might wish to develop its approach to the subject. It will be apparent throughout this paper that different interpretations may emerge due to the lack of consensus regarding terminology and definitions relating to the outer space.

I. Introduction

Generally speaking there are four sources of international law as outlined by Article 38(1) of the Statute of the International Court of Justice.[1] These are:

(a) international conventions, whether general or particular, establishing rules expressly recognized by the contracting states;

(b) international custom, as evidence of a general practice accepted as law;

(c) the general principles of law recognized by civilized nations;

(d) ... judicial decisions and the teachings of the most highly qualified publicists of various nations, as subsidiary means for the determination of rules of law.

This paper will limit its consideration to two categories. First, international conventions and treaties relevant to outer space will be reviewed. Treaties express the intention of the parties to create binding obligations under international law. They may also

reflect general principles of law and the obligations undertaken as part of a treaty may obtain broader acceptance so as to become a part of customary law.

Second, this paper will focus on UNGA resolutions some of which may reflect existing customary law or at least be indicative of the directions in which that law is evolving.

Comments by legal analysts have been included in the text where deemed appropriate.

II. International Agreements

Any consideration of international treaty law should be undertaken on the basis of the principles enumerated in the Vienna Convention on the Law of Treaties.[2]

Article 31 of this Convention provides the following general rule of interpretation:

1. A treaty shall be interpreted in good faith in accordance with the ordinary meaning to be given to the terms of the treaty in their context and in the light of its object and purpose.

2. The context for the purpose of the interpretation of a treaty shall comprise, in addition to the text, including its preamble and annexes:

   (a) any agreement relating to the treaty which was made between all the parties in connection with the conclusion of the treaty;

   (b) any instrument which was made by one or more parties in connection with the conclusion of the treaty and accepted by the other parties as an instrument related to the treaty.

3. There shall be taken into account, together with the contexts:

   (a) any subsequent agreement between the parties regarding the interpretation of the treaty or the application of its provisions;

   (b) any subsequent practice in the application of the treaty which establishes the agreement of the parties regarding its interpretation;

(c) any relevant rules of international law applicable in the relations between the parties.

4. A special meaning shall be given to a term if it is established that the parties so intended.

The discussion of treaties which follows is arranged chronologically by the date of the agreement in question. It should be noted that several treaties are covered which might seem at first glance to be irrelevant to the subject of arms control and outer space. These agreements are included simply because some of their provisions (especially those regarding verification) or the circumstances surrounding their negotiation may shed light on developments respecting arms control and outer space.

(i) The Charter of the United Nations (1945)[3]

The UN Charter has considerable relevance to the subject of arms control and outer space. It is explicitly mentioned in several treaties which deal directly with outer space including the 1967 Outer Space Treaty where parties agree to carry on their activities relating to the exploration and use of outer space "in accordance with international law, including the Charter of the United Nations ..." (Article III; see also the Preamble). Similarly, the Moon Treaty mentions the Charter (Articles II and IV) as does the Environmental Modification Treaty (Preamble and Article V).

Particularly relevant in the context is one of the stated purposes of the UN:

1. To maintain international peace and security, and to that end: to take effective collective measures for the prevention and removal of threats to the peace, and for the suppression of acts of aggression or other breaches of the peace, and to bring about by peaceful means, and in conformity with the principles of justice and internatonal law, adjustment or settlement of international disputes or situations which might lead to a breach of the peace; (Article 1)

Also important is the Preamble which states that the peoples of the United Nations will ensure that "by

acceptance of principles and the institution of methods, that armed force shall not be used, save in the common interest".

States are also inter alia obligated to settle disputes peacefully and refrain from the threat or use of force under Article 2:

> The Organization and its members, in pursuit of the Purposes stated in Article 1, shall act in accordance with the following Principles.
>
> 1. The Organization is based on the principle of the sovereign equality of all its Members.
>
> 2. All Members, in order to ensure to all of them the rights and benefits resulting from membership, shall fulfil in good faith the obligations assumed by them in accordance with the present Charter.
>
> 3. All Members shall settle their international disputes by peaceful means in such a manner that international peace and security, and justice, are not endangered.
>
> 4. All members shall refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any state, or in any other manner inconsistent with the purposes of the United Nations....

Such obligations would seem to apply also to the activities of states in outer space, especially in view of the provisions of the Outer Space Treaty and other treaties mentioned above.

An important proviso to these obligations under the Charter is contained in Article 51 which states:

> Nothing in the present Charter shall impair the inherent right of individual or collective self-defence if an armed attack occurs against a Member of the United Nations, until the Security Council has taken measures necessary to maintain international peace and security. Measures taken by members in the exercise of this right of self-defence shall be immediately reported to the Security Council and shall not in any way affect

the authority and responsibility of the Security Council under the present Charter to take at any time such action as it deems necessary in order to maintain or restore international peace and security.

(ii) Antarctic Treaty (1959)[4]

During the International Geophysical Year (IGY) of 1957[5] the international scientific community conducted a number of studies of man's environment - the earth, the oceans, the atmosphere and outer space. The guidelines for the IGY contained several ideas which were later incorporated in the Antarctic Treaty of 1959, and some of these basic provisions served as precedents for later treaties particularly the 1967 Outer Space Treaty, the 1967 Treaty of Tlatelolco, the 1971 Seabed Treaty, and the 1979 Moon Treaty.

Two of the main purposes of the Antarctic Treaty were to ensure continuation of scientific cooperation and to avoid the militarization of the continent. In regard to the latter, the suitability of Antarctica for nuclear tests and the testing of other military equipment provided a strong incentive to prohibit the military use of Antarctica.

The preamble to the Antarctic Treaty recognized "that it is in the interest of all mankind that Antarctica shall continue forever to be used exclusively for peaceful purposes and shall not become the scene or object of international discord" indicating that the parties intended to create a legal regime for this area which would ensure peace on the continent and facilitate international cooperation.

In its operative part, the Treaty seeks to preserve a non-militarized status of the Antarctic by prescribing in Article I(1) that it shall be used "for peaceful purposes only" and prohibits "inter alia any measures of a military nature, such as the establishment of military bases and fortifications, the carrying out of military manoeuvres, as well as the testing of any type of weapons".[6] It is interesting to note that certain terms, such as "peaceful purposes", are not defined in the treaty.[7]

The Treaty, according to paragraph 2 of Article I, "shall not prevent the use of military personnel or equipment for scientific research or for any other peaceful purposes". This provision is said to have been

included in recognition of the importance of the support rendered, to scientific activities by naval vessels and personnel.[8]

The extent of the freedom of scientific investigation, as established in Article II of the Treaty, is set out in Article III. Freedom of scientific investigation is provided for to the extent to which it was actually exercised during the IGY.[9] Furthermore, one of its important elements is that of international cooperation.[10] The parties to the Treaty agree that to the greatest extent feasible and practicable, exchanges shall take place concerning plans for scientific programmes, or scientific personnel between expeditions and stations, and of scientific observations and results. Provision is also made for close cooperation with the specialized agencies of the United Nations and other international organizations having scientific or technical interest in Antarctica (Article II(2)).

Article V prohibits "any nuclear explosions in Antarctica and the disposal there of radioactive waste material".[11]

In order to promote the objectives and to ensure the observance of the Treaty's provisions, the principle of open inspection was established in Article VII of the Treaty.[12] Under paragraph 3 of Article VII, all areas of Antarctica, including all stations, installations and equipment shall be open at all times to inspection by any observers designated by state parties. Each of these observers shall have complete freedom of access at any time to any or all areas of Antarctica. Aerial observation is also permitted. In order to facilitate observation, information is exchanged between the parties as to expeditions to and within Antarctica, on all stations therein and any military personnel or equipment intended to be introduced into Antarctica (Article IX(1)). No sanctions are provided for non-compliance with the Treaty's provisions. Disputes about interpretation of the Treaty are to be dealt with by consultations. If a dispute remains unresolved, it may be taken to the International Court of Justice (Article XI).

Article IX of the Treaty contains important elements for the joint administration of Antarctica. In particular, representatives of contracting parties so entitled shall meet at suitable intervals for the purpose of exchanging information and for consultation on matters of common interest pertaining to Antarctica; and for

formulating and considering, as well as recommending to their governments, measures to further the principles and objectives of the Treaty. Article XII provides for a review conference thirty years after the Treaty's coming into force.

Prior to the beginning of international cooperation for scientific research, a number of states had already made claims of sovereignty over part of Antarctica. Article IV of the Treaty basically "freezes" the claims to sovereignty and jurisdiction of interested states. Under this provision, the Treaty does not have the effect of a renunciation by any contracting party of previously asserted rights or claims to territorial sovereignty. Furthermore, no new claims or enlargement of any existing claims shall be asserted while the Treaty is in force (Article IV(2)).

Concepts embodied in the Antarctic Treaty, such as the use of this area for peaceful purposes only, the freedom of scientific investigation, the promotion of international cooperation and the exchange of information and scientific personnel constitute examples of provisions which may be of relevance to the subject of arms control and outer space. The Antarctic Treaty is an example of the contribution that international law can make in ensuring a safer world.[13]

(iii) The Partial Test Ban Treaty (1963)

Concern for radioactive fallout caused by nuclear testing was one of the strongest motivating forces behind the Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Under Water.[14]

It developed between 1958 and 1962, with negotiations eventually being conducted in the Eighteen Nation Disarmament Committee (ENDC). Lack of progress in this forum led to private negotiations which resulted in the Treaty. The ENDC and its successors have considered but have not concluded an agreement to ban all nuclear tests.

The direct effect of paragraphs 1 and 2 of Article I is such that it is illegal to carry out a nuclear explosion in outer space:

> 1. Each of the Parties to this Treaty undertakes to prohibit, to prevent, and not to carry out any nuclear weapon test explosion, or any other

nuclear explosion, at any place under its jurisdiction or control;

(a) in the atmosphere; beyond its limits, including outer space;...

2. Each of the Parties to this Treaty undertakes furthermore to refrain from causing, encouraging, or in any way participating in, the carrying out of any nuclear weapon test explosion, or any other nuclear explosion anywhere which would take place in any of the environments described, or have the effect referred to, in paragraph 1 of this Article.

(iv) Outer Space Treaty (1967)

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] commonly known as the Outer Space Treaty, is regarded as the cornerstone international space law convention. As is evident from its full title, the Treaty establishes a basic legal framework for general space exploration and utilization. Moreover, it marks an important step in controlling certain, though not all, arms in outer space.

Being the first international convention directly relating to an environment regulated by, at best, nebulous customary international law principles, its significance cannot be overestimated. Its adoption brought about substantive changes in the legal regime of outer space. What before had merely been a set of non-binding guidelines now became legal obligations.

Since the Treaty holds a central position within the legal framework governing all activities carried out in space, it is necessary to examine its provisions closely. Three general themes emerge from such an examination: freedom of exploration and use, peaceful use and cooperation and international responsibility of states for their activities in outer space.

In the operative part of the Treaty, Article I reiterates the primary interests of the international community:

The exploration and use of outer space, including the moon and other celestial bodies, shall be carried out for the benefit and in the interests

> of all countries, irrespective of their degree of economic or scientific development, and shall be the province of all mankind.
>
> Outer Space, including the moon and other celestial bodies, shall be free for exploration and use by all States without discrimination of any kind, on a basis of equality and in accordance with international law, and there shall be free access to all areas of celestial bodies.
>
> There shall be freedom of scientific investigation in outer space, including the moon and other celestial bodies, and States shall facilitate and encourage international cooperation in such investigation.

This Article establishes a basic principle of space law: space shall be free for exploration and use by all states on the basis of equality.

According to Article II, outer space is not subject to national appropriation by claims of sovereignty, by means of use or occupation, or by any other means. This Article reflects the notion of res communis already granted substantial recognition by customary international law. Article III obliges states to undertake space activities "in accordance with international law, including the Charter of the United Nations, in the interest of maintaining international peace and security and promoting international cooperation and understanding".

The primacy of the common interest of all nations[16] is stressed again in Article IX of the Outer Space Treaty which states that parties shall be guided by the principle of cooperation and mutual assistance in the exploration and use of outer space, and shall conduct all their activities with due regard to the corresponding interests of all other parties to the Treaty. It is worthy of note that in the first three articles of the operative part of the Outer Space Treaty, in which the guiding principles governing space activities have been laid down, no mention of the use of the whole of outer space exclusively for peaceful purposes has been made.[17] It is only with respect to the moon and other celestial bodies that this concept has been accepted (Article IV(2)).

Article IV contains the only provision of the Outer Space Treaty addressed specifically to military activities and reads as follows:

> States Parties to the Treaty undertake 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 moon and other celestial bodies shall be used by all States Parties to the Treaty exclusively for peaceful purposes. The establishment of military bases, installations and fortifications, the testing of any type of weapons and the conduct of military manoeuvres on celestial bodies shall be forbidden. The use of military personnel for scientific research or for any other peaceful purposes shall not be prohibited. The use of any equipment or facility necessary for peaceful exploration of the moon and other celestial bodies shall also not be prohibited.

The first paragraph of this article codifies the policy set forth in a bilateral pledge by the United States and the Soviet Union, later unanimously adopted as a resolution of the United Nations General Assembly.[18] Within its admitted limits it contributed affirmatively to the stabilization of international relations through the imposition of some restraints on the military use of the space environment.[19] It also expands the prohibition against nuclear tests in outer space contained in the Partial Test Ban Treaty, to encompass any other kind of weapons of mass destruction.

The second paragraph of Article IV is one of the most controversial provisions of the Treaty and has often been cited in support of the claim that the Treaty forbids only those military activities that are enumerated in the above-mentioned article.[20] An argument has been advanced that Article IV, in conjunction with other provisions of the Treaty, imposes "complete demilitarization of outer space".[21] However, the negotiating history of the Treaty, its text and the practice of states would not seem to support this view.

To verify compliance with the provisions of the Outer Space Treaty, Article XII provides for inspection "on the basis of reciprocity" of all stations,

installations and equipment on the moon or other celestial bodies. Advance notice of inspection is required to ensure safety and to avoid interference with the operations of the facility to be visited. This provision for inspections does not, however, apply to objects in earth orbit. Observation of launches and flights of spacecraft on a voluntary basis is also allowed for by Article X. Article XI, which requires states to inform the UN Secretary General, the public and the scientific community "to the greatest extent feasible and practicable, of the nature, conduct, locations and results" of space activities, also has a limited role in the context of verification.

Concerning anti-satellite (ASAT) weapons Article IV of the Outer Space Treaty, read alone, makes certain legal conclusions clear. First, weapons systems of any kind including conventional weapon systems cannot be lawfully employed on the moon or other celestial bodies.[22] Second, the precise language of Article IV is such that ASATs "would not be prevented from being placed in outer space, per se",[23] since there is no specific stipulation in Article IV that space shall be used "exclusively for peaceful purposes" and ASATs are not prima facie weapons of mass destruction. Moreover, the negotiations between the space powers on this matter[31] suggest that they do not regard the terms of the Outer Space Treaty, as prohibiting the emplacement of anti-satellite devices in outer space. This attitude is further reinforced by recent Soviet proposals to ban all weapons in space. Thus, it would appear that the term "weapon of mass destruction" does not cover the emplacement in outer space of non-nuclear ASAT weapons. The same analysis is likely to apply to laser and particle-beam weapon systems with one reservation: the incipient nature of such systems makes it difficult to conclude whether such weapon systems would be for the purpose of mass destruction. This would probably depend on the type of system and its design objectives. Fractional orbital bombardment missiles (FOBS), although clearly weapons of mass destruction, may also not be prohibited by the Outer Space Treaty because they are in "outer space" (as yet undefined in international law) for less than one full orbit around the earth. SALT II, however, does include a provision prohibiting new FOBS systems.

It is worth mentioning that the Outer Space Treaty is not, in fact, an arms control treaty but was in large measure negotiated in COPUOS. COPUOS does not have

a mandate specifically to negotiate matters concerning arms control. That is the specific responsibility of the CD. It is recognized, however, that the arms control and peaceful use aspects of the outer space issue are closely related.

(v) The Treaty of Tlatelolco (1967)

The parties to the Treaty for the Prohibition of Nuclear Weapons in Latin America[24] agree to use nuclear materials under their jurisdiction exclusively for peaceful purposes and to prevent on their territories the testing, use, manufacture, production, acquisition, receipt, storage, installation, deployment or any form of possession of nuclear weapons. They also agree to refrain from engaging in or participating in the testing, use, manufacture, production, possession or control of nuclear weapons (Article I). In essence, the Treaty establishes a nuclear weapons free zone in Latin America.

The safeguards system of the International Atomic Energy Agency applies to peaceful nuclear activities of parties as a control mechanism and for verification purposes (Article XII). In addition, the Convention establishes the Agency for the Prohibition of Nuclear Weapons in Latin America to ensure, among other things, compliance with Treaty provisions (Article VII). The Treaty is noteworthy as representing the first agreement on arms limitation to create an effective regional system of control under a permanent supervisory organ. Specifically, the Agency and the IAEA have the authority to verify that devices and facilities intended for peaceful uses of nuclear energy are not used to test or manufacture nuclear weapons and that explosions for peaceful purposes are compatible with the Treaty. Methods of verification include inspections (Article XVI). Measures are prescribed in the event of violation including referral of the matter to the OAS and UN (Article XX). The Agency is also empowered to enter into relations with any international organization or body, including any future body established to supervise disarmament or measures for the control of armaments in any part of the world (Article XIX).

The Treaty might be seen to serve as an initial model of regional cooperation for the control of arms. The verification provisions also provide a precedent for international control organizations.

(vi) Rescue and Return Agreement (1968)

The Agreement on the Rescue of Astronauts, the Return of Astronauts, and the Return of Objects Launched into Outer Space[25] as its title suggests provides for the tendering of assistance and the rescue of astronauts in distress whether on sovereign territory or from areas outside of state jurisdiction.[26]

(vii) The Non-Proliferation Treaty (1968)[27]

This Treaty was negotiated and drafted by the ENDC pursuant to the 1965 General Assembly Resolution 2028 (XX) requesting the ENDC to give urgent consideration to the problem of nuclear weapons proliferation.

Article I of the Non-Proliferation Treaty prohibits the transfer, from a nuclear-weapon state "to any recipient whatsoever nuclear weapons or other nuclear explosive devices or control over such weapons or explosive devices directly, or indirectly." It also requires nuclear weapon states "not in any way to assist, encourage, or induce any non-nuclear-weapon State to manufacture or otherwise acquire nuclear weapons or other nuclear explosive devices, or control over such weapons or explosive devices".

This is the active prohibition. The corollary is found in Article II which prohibits the corresponding activities on the part of the non-nuclear receiving state.

Article III provides for verification using safeguards established by the International Atomic Energy Agency. The IAEA inspectors have the authority to conduct regular on-site inspections of nuclear facilities coming under the NPT regime. The NPT, therefore, can be said to serve as a precedent for the establishment of an international body empowered to monitor compliance with a multilateral convention dealing with a specific type of weapon.

(viii) The Seabed Treaty (1971)[28]

This Treaty prohibits emplacing on the seabed and the ocean floor, and in the subsoil thereof beyond the outer limit of a coastal zone, any nuclear weapons or any other types of weapons of mass destruction as well as structures, launching installations or any other facilities especially designed for storing, testing or using such weapons (Article I).

Article III, paragraph 1 of the Treaty states that in order to ensure compliance, each state party has the right to verify, through observation, the activities of other parties on the seabed provided only that this observation does not interfere with such activities. Such observation can be conducted by the parties through the use of their own means, with the assistance of other parties or through appropriate international procedures within the framework of the United Nations and in accordance with its Charter. Should a state be dissatisfied with its inspection and reasonable doubts remain concerning the fulfillment of obligations assumed under the Treaty, the parties shall consult with a view to removing such doubts (Article III (2)). If doubts still persist, the state questioning compliance may notify the other parties to the Treaty with a view to co-operating on further procedures for verification including appropriate inspection of installations (Article III (3)). Finally, if satisfaction is still lacking, the state may refer the matter to the UN Security Council which is empowered to take any action in accordance with the Charter (Article III (4)). The Final Declaration of the Second Review Conference of the parties to the Seabed Treaty states that paragraphs (2), (3) and (5) of Article III include the right of parties to resort to various international consultative procedures, such as ad hoc consultative groups of experts.

Like the Antarctic Treaty, the Treaty of Tlatelolco and the Outer Space Treaty, the Seabed Treaty prevents the introduction of nuclear weapons to a new region of the earth's environment.

(ix) Agreement on Measures to Reduce the Risk of Outbreak of Nuclear War (1971)[29], Agreement on Measures to Improve the Direct Communications Link (1971)[30] and Agreement on the Prevention of Nuclear War (1973)[31]

In the Prevention of Nuclear War Agreement each side undertakes to act in a manner so as "to prevent the development of situations capable of causing a dangerous exacerbation of their relations, as to avoid military confrontations and as to exclude the outbreak of nuclear war between them and between either of [them] and other countries" (Article I). This is further extended by Article II which requires the parties to refrain from the

threat or use of force against the other or its allies. In a crisis threatening nuclear war the parties agree to hold consultations.

The Agreement on Measures to Reduce the Risk of Outbreak of Nuclear War requires the parties, inter alia, to notify each other immediately of signs of interference with their early warning systems or related communications facilities if such occurrences threaten nuclear war (Article III). There is, in this provision, a recognition that interference with early warning systems (including satellites) could risk the outbreak of nuclear war. Since the parties have agreed in the Prevention of Nuclear War Agreement not to create situations or use force which would endanger international peace and security or cause a dangerous exacerbation of their relations, they have an implied understanding of the need to avoid interfering with early warning satellites.

The 1971 Agreement on Measures to Improve the Direct Communication Link requires the establishment of two additional communications circuits between the superpowers, using satellite communications systems (Article I). Furthermore, "each Party confirms its intention to take all possible measures to ensure the continuous and reliable operation of the communication circuits ..." (Article II). These provisions therefore, to prohibit interference with communications satellites involved in the Direct Communication Link.

(x) Convention on International Liability for Damage Caused by Space Objects (1972)[32]

This Convention is primarily intended to ensure prompt and equitable compensation for victims of damage caused by space objects. It establishes a set of rules for determining the source and measure of liability for damage occurring on earth, in outer space and in airspace. Specific procedures are envisaged for third party arbitration in cases of disagreement on responsibility or payment of damages.

Different degrees of liability apply depending on the location of the damage resulting from space activities. If the damage occurs on the earth's surface or to aircraft in flight then the launching state is absolutely liable (Article II). If, however, the damage is to another space object, then liability only attaches if the damage is due to the launching state's fault (Article III).

While the Convention is not directly relevant to arms control and outer space, it does reinforce the view that states are legally responsible for their activities, presumably including military activities, in outer space. Moreover, should the military activities of a state in outer space cause damage to third parties, presumably civil liability for those damages might follow.

(xi) Biological Weapons Convention (1972)[33]

One of the few truly disarmament agreements, this Convention prohibits the development, production, stockpiling and acquisition of biological warfare agents and weapons including toxins. It also requires the destruction or diversion to peaceful uses of existing stocks.

Only limited provisions are incorporated with regard to handling compliance problems. The parties agree to consult and cooperate with each other to resolve disputes about implementation (Article V). This may take place through appropriate international procedures within the framework of the United Nations. Complaints regarding violations of the treaty can be lodged with the UN Security Council (Article VI) and parties agree to cooperate with any Security Council investigation. Recent difficulties in resolving allegations of the use of chemical and/or toxin agents in South-East Asia and elsewhere illustrate the consequences of the lack of adequate agreed international verification of compliance procedures in such a treaty.

(xii) Anti-Ballistic Missile Treaty (1972)[34]

This Treaty between the USA and USSR prohibits the deployment of anti-ballistic missile (ABM) defences except for limited systems to protect each national capital and one other area (Article I and III). The 1974 Protocol to the Treaty restricts each side to one site only. Moreover, while the Treaty permits the development and testing of fixed land-based ABM systems at selected test sites, the parties undertake "not to develop, test or deploy ABM systems or components which are sea-based, air-based, space-based, or mobile land-based" (Article V (1), emphasis added). It can be noted that research is not expressly prohibited by the Treaty.

Verification of compliance with the ABM Treaty is to be provided by the use of "national technical means... in a manner consistent with generally recognized principles of international law" (Article XII (1)). Each party also agrees not to interfere with the national technical means of the other when used in accordance with Article XII (1). Furthermore, the use of deliberate concealment measures to impede verification by national technical means is prohibited (Article XII (2) and (3)). This provision against non-interference with national technical means has direct relevance to the law of outer space because one of the primary components of national technical means are reconnaissance satellites. In essence this provision reinforces the legitimacy of such satellite activities.

A Standing Consultative Commission is created to deal with compliance issues and other questions relating to the implementation of the Treaty (Article XIII).

(xiii) SALT I (1972)[35] and SALT II (1979)[36]

These agreements limit the number of strategic delivery vehicles that the superpowers may deploy. Only one provision of these agreements directly relates to outer space. Article IX (1)(C) of SALT II prohibits the development, testing or deployment of: "systems for placing into Earth orbit nuclear weapons or any other kind of weapons of mass destruction, including fractional orbital missiles". A common understanding to this provision states that it does not require the dismantling of any existing launchers. This provision, however, would seem to reaffirm and extends for these two states the applicability of the restrictions regarding nuclear weapons incorporated into Article IV of the Outer Space Treaty.

The other features of these agreements that are of most interest here, are those relating to verification. SALT I incorporates the same provision (Article V) regarding use of national technical means as that found in the ABM Treaty (Article XII). Compliance questions are referred to the same Standing Consultative Commission (Article VI).

SALT II also relies for verification on national technical means to be used in accordance with generally recognized principles of international law (Article XV (1)). As in SALT I and the ABM Treaty each party undertakes not to interfere with the other's national technical means (Article XV (2)) and not to use deliberate concealment measures to impede verification by national technical means (Article XV (3)). More precise definitions of concealment are provided in the form of Agreed Statements and Common Understandings. The use of design requirements such as "functionally related observable differences" to distinguish between weapons systems also facilitates verification. As was the case for the ABM Treaty and SALT I, these provisions relating to verification underscores the legitimacy of the use of military reconnaissance satellites which are a major element of national technical means of arms control and disarmament verification.

It is worth noting that recent events have underlined the limitations of national technical means when used alone for verification of strategic arms limits and have emphasized the need for additional effective methods of handling compliance questions.

SALT I expired in 1977 though both sides agreed to abide by its terms after that time. SALT II expires 31 December 1985. Though never ratified, both parties agreed to abide by the terms of SALT II on a reciprocal basis.

(xiv) The Threshold Test Ban Treaty (1974)[37] and the Peaceful Nuclear Explosions Treaty (1976)[38]

These two treaties are bilateral ones between the USA and the USSR. The Threshold Test Ban Treaty prohibits underground nuclear weapons tests exceeding 150 kt (Article I) and limits tests to designated test sites (Para. 1 of Protocol).

Verification, as under the ABM Treaty and SALT Treaties, is to be conducted by each side's national technical means used in a way consistent with international law (Article II). Each party again agrees not to interfere with the national technical means of the other. These national technical means include satellites as well as ground-based seismographic instruments.

In addition, the parties agree to consult about implementation. Noteworthy also is the exchange of data provisions in the Protocol relating to test site coordinates, geology, and test details. This Treaty was not ratified and no data exchange occurred. The parties did however state that they would abide by the 150 kt limit, on a reciprocal basis.

The Peaceful Nuclear Explosions Treaty is intended to complement the Threshold Test Ban Treaty by establishing a regime to govern underground nuclear explosions for peaceful purposes which by definition are those conducted outside test sites specified under the latter treaty. It limits any single peaceful nuclear explosion to 150 kt on a reciprocal basis. Any group of peaceful nuclear explosions is limited to 1500 kt. In the case of a group explosion, observers are to be invited on-site and they can bring their own monitoring equipment. Special detailed procedures for the shipment of this equipment are outlined. Other provisions for inspections are given regarding group explosions and individual explosions of different sizes. For explosions below 150 kt, national technical means of verification are relied upon, together with detailed data on the explosion provided by the party conducting it. The amount of information to be provided varies with the yield of the blast. A joint Consultative Commission is to be established to facilitate exchange of information and verification. Detailed procedures for the conduct of inspections are spelled out in a Protocol.

As with the Threshold Test Ban Treaty, the Peaceful Nuclear Explosions Treaty has not been ratified. The Treaty is significant because it involves on-site inspections that would take place at military-related sites on the territory of each superpower. Moreover, the two Treaties because they refer to non-interference with national technical means, again reinforce the legitimacy of military reconnaissance satellites as verification systems in the arms control and disarmament process.

(xv) The Registration Convention (1975)

The Convention on Registration of Objects Launched into Outer Space[39] entered into force on 13 September 1976. The Treaty establishes a mandatory and uniform registration system for objects launched into outer space. It provides for a general registry which is kept by the United Nations Secretary General and which is

publicly accessible. The Convention also provides a uniform format for information furnished by launching states.

The Treaty is based on the voluntary system established by General Assembly Resolution 1721 of 1961.[40] Under the voluntary system there was, however, no delineation of what details should be provided. Consequently, the information furnished by countries was not uniform and was not reported promptly and on a regular basis.

The Registration Convention is a reflection of the general principles established by the Outer Space Treaty and elaborated through the Rescue Agreement and Liability Convention. While the other treaties do not refer to a central registry system, the Outer Space Treaty does contemplate national registries.[41]

Three reasons have been posited for the establishment of a central registry: effective management of traffic, enforcement of safety standards, and imputation of liability for damage.[42] While the central registry is the most significant feature of the Treaty, it fulfills several other important objectives. Launching countries must maintain a national registry (Article II). Article IV of the Registration Convention requires mandatory reporting to the Secretary-General of the United Nations of information on a number of data, such as the date and location of the launch, changes in orbital parameters after the launch, and the recovery date of the spacecraft. States are not obliged to disclose the specific function of the satellite, but only the "general function of the space objects"(Article 1(e)). Furthermore, the Registration Convention does not require a launching state to provide appropriate identification markings for its spacecraft and its component parts.[43]

It is worthy of note that, notwithstanding the fact that over half of the satellites launched serve military purposes,[44] not one of the launchings registered has ever been described as having a military function.

(xvi) Environmental Modification Convention (1977)

The Environmental Modification Convention[45] as its title suggests aims at prohibiting the hostile use of potentially disastrous environmental modification techniques. This Convention is relevant to outer space

because of the potential of space science and technology for use in environmental modification either for peaceful or hostile uses. The dual-purpose nature of these technologies is explicitly referred to in the Preamble of the Convention which recognizes that the use of such techniques for peaceful purposes could "contribute to the preservation and improvement of the environment for the benefit of present and future generations", while their military or any other hostile application "could have effects extremely harmful to human welfare".

The key provision of the Convention is contained in Article I (1) which prohibits "military or any other hostile use of environmental modification techniques having widespread, long-lasting or severe effects as the means of destruction, damage or injury to any other State Party". Environmental modification techniques are defined as those which can be used "for changing - through the deliberate manipulations of natural processes - the dynamics, composition or structure of the Earth, including its biota, lithosphere, hydrosphere, and atmosphere, or of outer space" (Article II, emphasis added). The Convention, therefore, has direct application to outer space.

The Convention does not establish a ban on all environmental modification technologies for military or hostile purposes, but only for those which have widespread, long-lasting or severe effects. No definition of these terms may be found in the Convention itself. However, the understandings which accompany the Convention and form part of its negotiating record, define "widespread" as encompassing an area of several hundred square kilometers; "long-lasting" as lasting for a period of months or approximately a season; and "severe" as involving significant disruption or harm to human life, natural and economic resources or other assets.[46] These broad and legally non-binding provisions do not alter the largely recognized consequence that whatever is not prohibited verbis expressis by the Convention is implicitly permitted.[47] Thus, non-hostile techniques are not prohibited, regardless of their effects, nor are techniques which produce destructive effects below a certain threshold.[48]

Another characteristic of the Convention derives from the dual-purpose character of environmental modification technologies. The Convention states that its provisions "shall not hinder the use of environmental modification techniques for peaceful purposes" (Article

III). As a result of their dual-purpose character, the distinction between peaceful and military applications becomes very difficult to draw. Peaceful applications might include changing rainfall patterns, dissipating fog, and the diversion of hurricanes and earthquakes to name but a few.[49] Hostile applications might include triggering of earthquakes, upsetting the ecological balance of a region and destroying crops. The purpose of using environmental modification techniques in war also includes interfering with communications. Because of the difficulty of distinguishing research and development for peaceful applications from that for hostile uses, nowhere does the Convention prohibit research and development of environmental modification technologies for war-like purposes.

Article III (2) states that parties to the Convention undertake to facilitate, and have the right to participate in, the fullest possible exchange of scientific and technological information on the use of environmental modification techniques for peaceful purposes. Article IV provides that each party to the Convention undertakes "to take any measure it considers necessary in accordance with its constitutional process to prohibit and prevent any activity in violation of the provisions of the Convention anywhere under its jurisdiction or control" . Such a provision would seem to have little practical significance since no definition is given as to what constitutes an "activity in violation". Furthermore, recourse to different national laws precludes the establishment of a uniform and objective set of sanctions in case of non-compliance.

No means of verification are provided for in the Convention. However, a recent study[50] has indicated that military and civilian weather satellites could assist in verifying compliance with the provisions of the Convention, though it would be difficult to determine the cause of any unusual developing weather pattern which may have been detected.

Where a state questions compliance with provisions of the treaty, it may request consultation with another state in accordance with Article V. Consultation may also take place through suitable international procedures within the framework of the UN including the services of appropriate international organizations. Furthermore, a Consultative Committee of Experts may be convened to deal with compliance matters. It would be

composed of representatives of any state party wishing to participate. The Committee is charged with transmitting to the Depositary, a report of its findings which would then be distributed to all state parties. Finally, any party having reason to believe that another party is in breach of its treaty obligations, may lodge a complaint with the UN Security Council. The Council is empowered to initiate its own investigation and parties to the Convention are obligated to cooperate with the Security Council.

(xvii) Moon Treaty (1979)

The Agreement Governing the Activities of States on the Moon and Other Celestial Bodies[51] is the most recent agreement dealing directly with outer space. A Resolution was adopted by consensus in the UN General Assembly on 5 December 1979 recommending the Treaty for signature and the Treaty came into force on 11 July 1984.[52] It should be noted that as of 31 March 1984 there are only four parties to this Treaty. The result of lengthy discussion and compromise, the Moon Treaty is a composite of general principles and specific provisions outlining permissible activity on the moon and other celestial bodies.[53] The Treaty is a further elaboration of certain concepts in the Outer Space Treaty. While it does not apply to the earth or earth orbits and while few states are party to the Treaty, the principles it contains regarding space conduct are of great interest.

The Moon Treaty is modeled on the Outer Space Treaty; space activities are to be carried out in accordance with international law in the interest of maintaining peace and security and promoting international cooperation and understanding. Exploration and use is to be carried out for the benefit and in the interests of all nations. All of these principles, while general, are of relevance to space law today.

There are several key articles in the Moon Treaty which serve to establish state conduct for the moon and other celestial bodies. Article IV (1) provides that exploration and use of the moon shall be the province of all mankind and shall be carried out for the benefit and in the interests of all countries regardless of their degree of economic or scientific development. In carrying out activities, states shall be guided by the principle of cooperation and mutual assistance.[54] Secondly, scientific investigation must be carried out without discrimination and on the basis of equality and in accordance with international law.

While arms control was not a major focus of discussion during the negotiations, some nations did express concern over the military implications of certain space activities. Article III of the Moon Treaty contains the only provision specifically addressed to military activities. Paragraph 1 provides that the moon and other celestial bodies shall be used "exclusively for peaceful purposes". While in this case the language is virtually identical to that found in Article IV (2) of the Outer Space Treaty, the effect is to expand the area of application of the peaceful purposes admonition.[55] Under the Outer Space Treaty only the moon and celestial bodies were specifically limited to peaceful purposes. Because of the definitional concept contained in Article I of the the Moon Treaty, orbits around and other trajectories to and around the moon and other celestial bodies must also be devoted to peaceful purposes.[56] With regard to Article III (2), some nations wanted to assure that this provision did not differ in effect from Article 2 (4) of the UN Charter and did not derogate from the right of self-defence under Article 51 of the UN Charter. Article III (2) of the Moon Treaty prohibits "any threat or use of force or any other hostile act or threat of hostile act" on the moon. Since there is no definition of the term "hostile act", there is no firm understanding as to how a hostile act might differ from the use of force. In this regard, it should be noted that when France signed the Moon Treaty it reported a clarification to the United Nations as follows:

> France is of the view that the provisions of Article 3, Paragraph 2 of the agreement relating to the use or threat of force cannot be construed as anything other than a reaffirmation, for the purposes of the field of endeavour covered by the agreement, of the principle of the prohibition of the threat or use of force, which states are obliged to observe in their international relations, as set forth in the UN Charter.[57]

Article III (2) also prohibits the use of the moon as a base for threatening the earth or spacecraft.

Paragraph 3 of Article III prohibits orbiting of nuclear and other kinds of mass destruction weapons around the moon and any other trajectory to or around the moon. It also forbids the placement or use of such weapons on the moon. It would seem that paragraph 3 attempts to settle the question caused by the omission of the moon from the prohibition contained in Article IV (1) of the Outer Space Treaty regarding placement of nuclear weapons and other weapons of mass destruction.

Paragraph 4 forbids "the establishment of military bases, installations and fortifications, the testing of any type of weapons and the conduct of military manoeuvres" on the moon.

As regards verification, parties to the agreement are allowed to inspect all space vehicles, equipment, facilities stations and installations belonging to any other party. Pursuant to Article XV (1), the Agreement authorizes every contracting state to conduct such inspection "on its own behalf or with the full or partial assistance of any other state party or through appropriate international procedures within the framework of the United Nations and in accordance with the Charter".

If a party believes another party is not fulfilling the obligations incumbent upon it pursuant to the Moon Treaty, it may request consultations with a view to arriving at a mutually acceptable resolution of any controversy (Article XV (2)). Should no settlement be forthcoming, the parties may take measures to solve their dispute by any other peaceful means. The assistance of the Secretary-General may be sought by either party in order to resolve the controversy (Article XV (3)).

(xviii) International Telecommunication Convention (1982)

The presently applicable International Telecommunication Convention was adopted in 1982 in Nairobi.[58] The purposes of the International Telecommunications Union (ITU) are to maintain and extend international cooperation for the improvement and rational use of telecommunications, to ensure the efficient use of the radio spectrum and to harmonize the actions of states in the attainment of these ends.[59] The ITU is also responsible for the allocation of radio frequencies for all outer space activities and for ensuring that the radio spectrum is utilized without harmful interference. With respect to the use of the geostationary orbit, provision is made requesting states to undertake efficient and economical utilization to ensure equitable access for all members (Article 33).

However, the opportunities for an equitable and rational allocation of orbital positions are reduced by Article 38 (1) of the Convention which states:

> Members retain their entire freedom with regard to military radio installations of their army, naval and air forces.

III. United Nations General Assembly Resolutions

The evolution of space law has closely followed space exploration. It should be noted that even prior to the first launchings, it was thought that on the basis of international law, outer space was res communis.[60] Thus, as was the case with the high seas, space was understood to be free for all to use and to be beyond sovereign claims. Even while the use of outer space was at an experimental stage, the need for its regulation was strongly defended. Initial efforts of the United States in early 1957[61] to ban the use of cosmic space for military purposes did not meet with a favourable response from the Soviet Union.[62] However, the twelfth session of the United Nations General Assembly adopted Resolution 1148 calling for the "joint study of an inspection system designed to ensure that the sending of objects through outer space should be exclusively for peaceful and scientific purposes."[63]

Soon after the launching of the first Soviet and American satellites[64] the international legal aspects of outer space activities began to be examined. In 1958, the United Nations General Assembly created an ad hoc Committee on Peaceful Uses of Outer Space by Resolution 1348 entitled "Question of the Peaceful Use of Outer Space.[65] Already at this early stage the Assembly resolved to "promote energetically the fullest exploration and exploitation of outer space for the benefit of mankind".[66] This was to be achieved on the basis of sovereign equality by international cooperation in the study and utilization of space for peaceful purposes. It was thought that the implementation of these aims could best be carried out by the establishment of an appropriate international body within the framework of the United Nations. Consequently, the ad hoc Committee was formed composed of eighteen members and charged with reporting to the General Assembly at its next session, on:

(1) the activities and resources of the U.N. and other international bodies relating to the peaceful uses of outer space;

(2) the area of international cooperation and programs in the peaceful uses of outer space which could appropriately be undertaken within the U.N.;

(3) the future organizational arrangements to facilitate international cooperation in space activities; and

(4) the nature of legal problems which might arise in carrying out space programs.

The ad hoc Committee obtained permanent status, as a Standing Committee, [67] in 1959 by UNGA Resolution 1472 almost one full year later.[68] This resolution recognized the common interest of mankind as a whole in furthering the peaceful use of outer space and, significantly, made mention of the paramount aim to benefit all states "irrespective of their economic or scientific development" through space exploration. The Assembly also noted that the U.N. should promote international cooperation in outer space. The next significant Resolution, 1721, adopted unanimously in December 1961,[69] would serve to guide the subsequent evolution of space law. In addition to reiterating the afore-mentioned principles, the Assembly adopted the guiding principle that outer space and celestial bodies would be "free for exploration and use by all States in conformity with international law and would not be subject to national appropriation".[70] The Assembly called upon states launching objects to furnish COPUOS with information regarding launch details and acquired scientific and technological knowledge. This information was to be communicated through the Secretary-General who was requested to maintain a public registry of all furnished details. COPUOS was instructed to maintain close links with the Secretariat in order to ensure full cooperation and interaction between government and non-governmental organizations concerned with outer space matters.

Thus by 1961 three important themes had emerged:

(1) that exploration was to be according to international law;

(2) that all states would be free to explore and use the outer space environment;

(3) that space could not be subject to claims of sovereignty.

These themes were further elaborated upon in 1963 by the very important Resolution 1962 entitled "Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space".[71] The following guiding principles were propounded:

(1) the exploration and use of outer space should be carried on for the benefit and in the interest of all mankind;

(2) outer space and celestial bodies should be free for exploration and use by all states on a basis of equality and in accordance with international law;

(3) outer space and celestial bodies should not be subject to national appropriation;

(4) the activities of states in the exploration and use of outer space should be carried on in accordance with international law, including the Charter of the United Nations;

(5) states should bear international responsibility for national activities in outer space, this responsibility to be borne by the states alone or by the international organizations and by the states participating in them; it was also set forth that national activities should require continuing supervision by the state concerned;

(6) in the exploration and use of outer space, states should be guided by certain principles of responsibility, as well as request consultation between interested parties;

(7) the state on whose registry an object launched in outer space is carried should retain jurisdiction and control over such object and its component parts;

(8) each state which launches or procures a launching of the object into outer space should be internationally liable for damage to a foreign state by such object or its component parts on the earth, in air space or in outer space;

(9) states should regard astronauts as envoys of mankind in outer space and should render to them all possible assistance; the principle of the return of astronauts and their space vehicles to the state of registry was also laid down.[72]

The Declaration of Legal Principles, as well as its precursor Resolution 1721, did not contain any specific controls on military uses of outer space and/or celestial bodies, but did make reference to the general principle that the exploration and use of outer space should be carried on for peaceful purposes.

Another factor which favoured progress in the enhancement of public order in space during this period could be broadly classified as community concerns. In 1962, within the Eighteen-Nation Committee on Disarmament (ENDC) several countries pressed for priority in the question of the Peaceful Uses of Outer Space.[73] During 1963, a joint draft resolution to ban nuclear and other weapons of mass destruction from outer space was initiated in the ENDC. Following private negotiation and agreement between the United States and the Soviet Union, the draft was referred to the General Assembly. On 13 October 1963, the General Assembly approved the draft as Resolution 1884 (XVIII). In its operative part, the resolution calls upon all states: "(a) to refrain from placing in orbit around the earth any objects carrying nuclear weapons or any other kinds of weapons of mass destruction, installing such weapons on celestial bodies, or stationing such weapons in outer space" or in any way participating in the conduct of the foregoing activities. The substance of this resolution eventually was incorporated into The Outer Space Treaty of 1967 as Article IV (1).

These important concepts formed the basis for conduct in outer space and future space law conventions. It is worthy of note that Resolution 1962 was adopted unanimously. Nevertheless, the adoption of the significant provisions in all the afore-mentioned General Assembly resolutions, while welcomed, were considered only as provisional steps in establishing outer space law.[74] From a legal point of view, General Assembly resolutions do not constitute binding international law, and have the character of recommendations only. However, in some cases certain resolutions, may reflect customary international law or represent a step in the process of the progressive development of the law.

It is noteworthy that as regards Resolution 1962 many states declared, before its adoption, that their governments would consider the resolution as legally binding, or would at least agree to comply with its principles.[75]

However one characterizes the legal impact of General Assembly resolutions, it is evident that subsequent space treaty law has reflected many principles embodied in these early resolutions. More recent resolutions in the General Assembly have had less impact on the development of the law of outer space. They have, however, since 1981, highlighted an apprehension felt by some nations over an apparent trend towards stationing weapons in outer space.

IV. Summary

On the basis of the foregoing review of international law relating to arms control and outer space, certain themes, emerge. These may be summarized as follows:

(1) General international legal norms regarding military activities on earth (e.g. the UN Charter) also apply to military activities in outer space (Outer Space Treaty and Moon Treaty).

(2) Outer space and celestial bodies are not subject to national appropriation and are free for non-prohibited uses such as exploration and scientific investigation by all states (Outer Space Treaty and Moon Treaty).

(3) States bear international responsibility for their national activities in outer space and on celestial bodies (Outer Space Treaty, Moon Treaty and Liability Convention).

(4) Certain military activities in outer space are consistent with international law. These include:

(a) The use of military personnel in space (Outer Space Treaty).

(b) The use of space-based remote sensors for military purposes (ABM Treaty, SALT Treaties, Threshold Test Ban Treaty, and Peaceful Nuclear Explosions Treaty).

(c) The use of space-based communications, navigation, meteorological systems.

(5) Certain military activities in space are inconsistent with international law. These include:

(a) Interference with space-based remote sensors used for military purposes as between the USA and USSR (ABM Treaty, SALT Treaties, Threshold Test Ban Treaty and Peaceful Nuclear Explosion Treaty).

(b) Placement of nuclear weapons and other weapons of mass destruction in orbit around the earth and on celestial bodies or in orbit around them. (Outer Space Treaty, Moon Treaty, SALT II). This includes new fractional orbital systems (SALT II).

(c) Hostile acts or use of force on celestial bodies and orbits around them. (Moon Treaty).

(d) Placement of military bases and conduct of military tests or manoeuvres on celestial bodies and in orbits around them. (Outer Space Treaty and Moon Treaty).

(e) Testing of nuclear weapons in outer space (Partial Test Ban Treaty).

(f) Development, testing, deployment of space-based ABM systems or components (ABM Treaty).

(g) Military or hostile use of environmental modification techniques in outer space (Environmental Modification Treaty).

V. Conclusion

Opinions may vary on whether or not each of the five categories outlined above could be extended to encompass other space activities beyond those itemized. Opinions will also differ on the legal status of many of the themes listed. Much of the discussion surrounding what activities are permitted and what are proscribed focusses on certain key definitions such as "peaceful purposes", "free use", "militarization". Consideration of these definitions may facilitate the future deliberation of the CD on arms control and outer space.

NOTES

(1) (1946) no. 67 United Kingdom Treaty Series, Cmd. 7015. Signed 26 June 1945; entered into force 24 October 1945.

(2) (1980) no. 58 United Kingdom Treaty Series, Cmd. 7964. Opened for signature 23 May 1969; entered into force 27 January 1980.

(3) Supra, note 1.

(4) (1961), 402 United Nations Treaty Series 71. Opened for signature 1 December 1959; entered into force 13 June 1961.

(5) The International Geophysical Year (IGY) was organized under the auspices of the International Council of Scientific Unions in 1957-58 and was planned and carried out by more than 50 states. Each participating state planned and developed its own programs, which were coordinated by a special Committee for the International Geophysical Year. See: Buedeler, The International Geophysical Year, UNESCO, (1957); Chapman, IGY-Year of Discovery, (1959).

(6) See also Article IX (1) (a): "use of Antarctica for peaceful purposes only" and the first and fourth preambular paragraphs.

(7) Stein, "Legal Restraints in Modern Arms Control Agreements", (1972), 66 American Journal of International Law, 255, 259; Vlasic, "Disarmament Decade, Outer Space and International Law", (1981), 26 McGill Law Journal 173.

(8) Hanessian, "The Antarctic Treaty", (1959), International and Comparative Law Quarterly 436, 468.

(9) Article II states: "Freedom of scientific investigation in Antarctica and cooperation toward that end, as applied during the International Geophysical year, shall continue, subject to the provisions of the present Treaty".

(10) Article III states:

"1. In order to promote international cooperation in scientific investigation in Antarctica, as provided for in Article II of the present Treaty, the contracting Parties agree that, to the greatest extent feasible and

practicable: (a) information regarding plans for scientific programmes in Antarctica shall be exchanged to permit maximum economy and efficiency of operations; (b) scientific personnel shall be exchanged in Antarctica between expeditions and stations; (c) scientific observations and results from Antarctica shall be exchanged and made freely available.

2. In implementing this Article, every encouragement shall be given to the establishment of cooperative working relations with those Specialized Agencies of the United Nations and other international organizations having a scientific or technical interest in Antarctica."

(11) According to Article V (2), if all the contracting parties were to adhere to any broader international agreements concerning the use of nuclear energy, including nuclear explosions and the disposal of radioactive waste material, those agreements would apply to Antarctica.

(12) Article VII (2). This provision was the first time that the two superpowers agreed on an on-site inspection system to ensure against unauthorized military activity.

(13) Antarctica: 10th Meeting of Treaty Consultative Parties, (November 1979), Department of State Bulletin 21.

(14) (1963), 480 United Nations Treaty Series 43. Opened for signature 5 August 1963; entered into force 10 October 1963.

(15) Adopted in UNGA Resolution 2222 (XXI), 19 Dec. 1966. (1967) 610 United Nations Treaty Series 206. Opened for signature 27 January 1967; entered into force 10 October 1967.

(16) Vlasic, supra, note 7, 170.

(17) Goedhuis, "What Additional Arms Control Measures Related to Outer Space Could be Proposed?", in: Jasani (ed.), Outer Space - A New Dimension of the Arms Race, (1982), 297, 299.

(18) UNGA Resolution 1884, 13 October 1963.

(19) Christol, "Article Four and 1967 Principles Treaty: Its Meaning and Prospects for its Clarification", Paper submitted at the XXIXth Congress of the International Institute of Space Law of the IAF, held in Dubrovnik, 1-8 October 1978, 6.

(20) Stein, supra, note 7, 260.

(21) Marcoff, Traité de droit international public de l'espace, (1973), 357.

(22) Christol, supra, note 19, 26.

(23) Ibid.

(24) UN Doc. S/RES/255 (1968). (1967) 634 United Nations Treaty Series 326. Opened for signature 14 February 1967; entered into force 22 April 1968.

(25) (1969) 672 United Nations Treaty Series 119. Opened for signature 22 April 1968; entered into force 3/December 1968.

(26) Articles II, III and IV.

(27) (1970) 729 United Nations Treaty Series 161. Opened for signature 1 July 1968; entered into force 5 March 1970.

(28) (1973) no. 13 United Kingdom Treaty Series, Cmd. 5266. Opened for signature 11 February 1971; entered into force on 18 May 1972.

(29) Agreement on Measures to Reduce the Risk of Outbreak of Nuclear War. (1972), 807 United Nations Treaty Series 57. Signed 30 Sept. 1971; entered into force 30 Sept. 1971.

(30) Agreement on Measures to Improve the Direct Communications Link. (1972), 806 United Nations Treaty Series 402.

(31) Agreement on the Prevention of Nuclear War. (1973), 24 United States Treaties 1478. Signed 22 June 1973; entered into force 22 June 1973.

(32) (1974) no. 16 United Kingdom Treaty Series, Cmd 5551. Opened for signature 29 March 1972; entered into force on 1 September 1972.

(33) Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction. (1976) no. 11 United Kingdom Treaty Series, Cmd 6397. Opened for signature 10 April 1972; entered into force 26 March 1975.

(34) Treaty between the USA and the USSR on the Limitation of Anti-ballistic Missile Systems. Treaties and Other International Acts, Series 7503, (Washington: US Department of State, 1973). Signed 26 May 1972; entered into force 3 October 1972. Protocol to the Treaty between the USA and the USSR on the Limitation of Anti-ballistic Missile Systems. UN Doc. A/9698, Annex III, 9 August 1974. Signed 3 July 1974; entered into force 24 May 1976.

(35) Interim Agreement Between the USA and the USSR on Certain Measures with Respect to the Limitation of Strategic Offensive Arms. Treaties and Other International Acts, Series 7504 (Washington: US Department of State, 1972). Signed 26 May 1972; entered into force 3 October 1972.

(36) Treaty Between the USA and the USSR on the Limitation of Strategic Offensive Arms, and Protocol. CD/28, 27 June 1979 and CD/29, 2 July 1979. Signed 18 June 1979.

(37) Treaty Between the USA and the USSR on the Limitation of Underground Nuclear Weapon Tests. U.N. Doc A/9698, Annex I and II, 9 August 1974. Signed 3 July 1974.

(38) Treaty Between the USA and the USSR on Underground Nuclear Explosions for Peaceful Purposes. CCD/496, 23 June 1976 and CCD/496/Corr. 1, 5 August 1976. Signed 28 May 1976.

(39) Adopted in UNGA Res. 3235 (XXII), 12 Nov. 1974. (1978) no. 70 United Kingdom Treaty Series, Cmd 7271. Opened for signature 14 Jan. 1975; entered into force 15 September 1976.

(40) UNGA Resolution 1721 (XVI), 20 Dec. 1961.

(41) In Articles V and VIII.

(42) Matte, Aerospace Law: From Scientific Exploration to Commercial Utilization, (1977), 159 and authorities therein cited.

(43) Vlasic, supra, note 7, 190.

(44) Goedhuis, supra, note 17, 298.

(45) (1979) no. 24 United Kingdom Treaty Series, Cmd. 7469. Opened for signature 18 May 1977; entered into force 5 October 1978.

(46) Understanding to Article I reproduced in Agreement Governing the Activities of States on the Moon and other Celestial Bodies, Committee on Commerce, Science, and Transportation, 95th Cong., 2nd Session, May 1980, 250.

(47) Dolman, Resources, Regimes, World Order, (1981), 322.

(48) Krieger, Disarmament and Development. The Challenge of the International Control and Management of Dual-Purpose Technologies, (1981), 41.

(49) In 1975, Canada submitted a working paper to the Conference of the Committee on Disarmament which groups 19 technologies within three main categories: atmospheric modification; modification of the oceans; and modification of the land masses and water systems associated with them. CCD/463, 5 August 1975; see also CCD/465, 8 August 1975 for the Swedish delegation's study.

(50) Jasani, Outer Space: A New Dimension of the Arms Race, (SIPRI), (1982), 111.

(51) UN Doc. A/RES/34, 68, 14 Dec. 1979.

(52) For an analysis of the development of the Treaty, see Matte, "Treaty Relating to the Moon", in: Jasentuliyana and Lee (eds.), Manual on Space Law, vol. I (1979), 253; Reijnen, "The History of the Draft Treaty on the Moon" (1975), 19th Colloq. on the Law of Outer Space 357.

(53) Reference to the moon hereinafter shall include other celestial bodies as well. Article 1(1) states that provisions of the agreement relating to the moon shall also apply to the other celestial bodies within the solar system, other than the earth, except in so far as specific legal norms enter into force with respect to any of these celestial bodies.

(54) Article IV (2). It is stressed that international cooperation in pursuance of the agreement " should be as wide as possible".

(55) Norris and Bridge, "Some Implications of the Moon Treaty with Regard to Public Order in Space", (1979) 23rd Colloquium on the Law of Outer Space 57, 57.

(56) Article I (2) states that reference in the Agreement to the Moon shall include orbits around or other trajectories to or around it.

(57) Supra, note 56.

(58) Final Acts of the Plenipotentiary Conference, International Telecommunications Union, Nairobi, 1982. Opened for signature 6 November 1982; entered into force, 1 January 1984. This Convention replaces the 1973 Malaya-Torremolinos Convention, (1975) United Kingdom Treaty Series, Cmd 6219.

(59) See generally Article IV of the Convention.

(60) Brownlie, Principles of Public International Law, (3rd ed.), (1979), 266-7.

(61) In its Memorandum submitted to the First Committee of the United Nations General Assembly on 12 January 1957, the United States proposed that "the first step toward the objective of assuring that future developments in outer space would be devoted exclusively to the peaceful and scientific purposes would be to bring the testing of such objects under international inspection and participation". UN Document A/C.1/783.

(62) For the position of the Soviet Union see UN Document DC/SC.1.49 (18 March 1957) and DC/SC/1/55 (30 April 1957).

(63) UNGA Res. 1148 (XII), 14 November 1957.

(64) The first Sputnik was launched on 4 October 1957, followed closely by Explorer 1 on 31 January 1958.

(65) UNGA Res. 1348 (XIII), 15 December 1958.

(66) Ibid.

(67) The Committee on the Peaceful Uses of Outer Space or COPUOS as it is commonly termed.

(68) UNGA Res. 1472 (XIV), 12 Dec. 1959.

(69) UNGA Res. 1721 (XVI), 20 Dec. 1961, "International Cooperation in the Peaceful Uses of Outer Space".

(70) Ibid.

(71) UNGA Res. 1962 (XVIII), 13 Dec. 1963.

(72) Matte, Aerospace Law, (1969), 106-7.

(73) United Nations Department of Political and Security Affairs, The United Nations and Disarmament, 1945-1970, 19.

(74) Kopal, "Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies", (1966), McGill Yearbook of Air and Space Law 463, 467.

(75) Kopal, supra, note 74, 467.

ANNEX 1

STATUS OF MULTILATERAL AGREEMENTS RELATING TO OUTER SPACE

		Opened for Signature	No. of Parties	as of (date)
1.	Charter of the United Nations	1945	158	31 March 1984
2.	Antarctic Treaty	1959	32	31 December 1984
3.	Partial Test Ban Treaty	1963	111	31 December 1984
4.	Outer Space Treaty	1967	92	31 December 1984
5.	Treaty of Talatelolco	1967	29	31 December 1984
6.	Rescue & Return Agreement	1968	79	31 March 1984
7.	Non-Proliferation Treaty	1968	127	31 December 1984
8.	Seabed Treaty	1971	81	31 December 1984
9.	Convention on International Liability for Damage Caused by Space Objects	1972	72	31 March 1984
10.	Biological Weapons Convention	1972	104	31 December 1984
11.	Registration Convention	1975	32	31 December 1984
12.	Environmental Modification Convention	1977	54	31 December 1984
13.	Moon Treaty	1979	4	31 March 1984
14.	International Telecommunications Convention	(a) 1973	156	31 March 1984
		(b) 1982	8	30 June 1985

Sources:

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CONFERENCE ON DISARMAMENT

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UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND

Principal international agreements which apply or otherwise relate directly or indirectly to outer space

I. Introduction

1. The agreements discussed in this working paper fall into three main categories:

(a) Those dealing with outer space and containing provisions either directly addressed to or having implications for arms control. Examples are the 1967 Treaty on the Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and other Celestial Bodies (generally known as the Outer Space Treaty) and the 1979 Treaty on principles Governing the Activities of States in the Exploration and Use of Outer Space including the Moon and other Celestial Bodies (generally known as the Moon Treaty).

(b) Arms control agreements which in part touch on outer space. Examples are the Partial Test Ban Treaty of 1963, the Treaty on the Limitation of Anti-Ballistic Missile Systems of 1972, the SALT I and II agreements of 1972 and 1979, and the ENMOD Treaty of 1977.

(c) Measures which relate to the use of space which could be termed Confidence Building Measures. Examples are the 1971 Agreement between the United States and Soviet Union on Measures to improve the United States/Soviet Direct Communications Link, the 1971 agreements on Measures to Reduce the Risk of Outbreak of Nuclear War, the United States/Soviet Agreement of 1973 on the Prevention of Nuclear War, the 1975 Convention on the Registration of Objects Launched into Outer Space, the agreement which came into force in 1968 on the Rescue of Astronauts, and that on Damage Caused by Space Objects, which came into force in 1972.

II. Initial International Steps to Protect the Space Environment

2. The 1963 Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Under Water (Partial Test Ban Treaty) was the first international Treaty to refer specifically to outer space. In Article I each of the Parties to the Treaty undertakes:

> "to prohibit, to prevent and not to carry out any nuclear weapon test or any other nuclear explosions at any place under its jurisdiction or control: (a) in the atmosphere; beyond its limits including outer space ...".

3. The Treaty is of unlimited duration, and it has over 100 countries as Parties. The reference to outer space in article I of the Treaty has gained greater significance in the intervening years since this Treaty came into force, as the scope and number of activities which are or could be carried out in outer space has greatly increased. Technically, a nuclear explosion would have

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*/ Reissued for technical reasons.

a devastating effect in outer space, destroying or damaging many of the satellites currently in orbit, not only because of the blast from the explosion itself, but also because of the disruption which would be caused by the electro-magnetic pulse (EMP) which a nuclear explosion would produce.

4. Therefore, any call for a new treaty prohibiting nuclear explosion in outer space is countered by the fact that such tests are already prohibited under the 1963 Partial Test Ban Treaty.

III. The Outer Space Treaty

5. The 1967 Treaty on the Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and other Celestial Bodies (The Outer Space Treaty), to which over 100 countries are Party, promotes the peaceful use of outer space. From a disarmament point of view, the key provision is contained in Article IV under which:

> "States Parties to the Treaty undertake not to place in orbit around the earth any objects carrying nuclear weapons or any other kinds of weapons of mass destruction, instal such weapons on celestial bodies, or station such weapons in outer space in any other manner".

6. The principal purpose of this provision, at the time of its negotiation by the United States and the USSR, was to prohibit the deployment in space of weapons which might circumvent the elaborate early warning system against attack by ballistic missiles which both countries had developed.

7. The Outer Space Treaty only contains specific verification provision in regard to installations and space vehicles on the moon and other celestial bodies. These facilities are open to inspection by other parties on the basis of reciprocity, but only after reasonable notice has been given and consultations between parties have been held to avoid interference and to assure safety. The closest the Treaty comes to the concept of verification in regard to its most important prohibition, on the stationing of nuclear weapons or any other kinds of weapons of mass destruction in outer space, is in Article X, which states that:

> "In order to promote international co-operation in the exploration and use of outer space, including the Moon and other celestial bodies, in conformity with the purposes of this Treaty, the States Parties to the Treaty shall consider on a basis of equality any requests by other States Parties to the Treaty to be afforded an opportunity to observe the flight of space objects launched by those States".
>
> "The nature of such an opportunity for observation and the conditions under which it could be afforded shall be determined by agreement between the States concerned".

Article XI could also be helpful in this connection.

8. Such provisions do not constitute an effective means of meeting any concerns which one State Party may have with regard to the nature of a space activity being carried out by another State Party. Despite the fact that the Outer Space Treaty does not contain any effective mechanism for verification of the placing in orbit around the Earth of any nuclear weapons or other weapons or other weapons of mass destruction, it does nevertheless contain a basic prohibition on the placing of such weapons in outer space which States Parties are required to observe. The Treaty, therefore, sets a benchmark against which their behaviour and activities can be judged. It is worth noting that the Treaty has no clause specifying the Treaty is of unlimited duration. Any State Party may withdraw.

IV. Bilateral Agreements between the United States and USSR which have relevance to the Space Environment

9. Article I (a) of the September 1971 Agreement between the United States of America and the USSR on Measures to Improve the USA-USSR Direct Communications Link, required the United States and the Soviet Union to establish and maintain two direct communication links by satellite. In Article 2, each Party confirms its intention to take all possible measures to assure the continuous and reliable operation of the communication circuits. Although not directly relevant, the agreement does contain the implicit requirement to maintain the satellite communications system in operational order.

10. Two other agreements appear in the same category. The 1971 agreements on Measures to Reduce the Risk of Outbreak of Nuclear War and the 1973 USA-USSR Agreement on the Prevention of Nuclear War also contain implicit undertakings not to interfere with the satellite early-warning or communications systems needed to ensure effective operation of both agreements. However, while interference with such systems would be incompatible with the purpose of increasing confidence which underpins such agreements, these particular agreements contain no specific prohibition on such interference.

11. Protection for satellites being used as national technical means of verification is written into a number of other bilateral US-Soviet Treaties. The SALT I Interim Agreement of October 1972 sets out in Article V that:

> "Each Party undertakes not to interfere with the National Technical Means of Verification of the other party operating in accordance with paragraph 1 of this Article".

Paragraph 1 in turn states that:

> "For the purposes of providing assurance of compliance with the provisions of this Interim Agreement, each party shall use National Technical Means of Verification ..."

In addition to the above, the Treaty on the Limitation of Anti-Ballistic Missile Systems (also of October 1972), which was negotiated concurrently with the Interim Agreements, contains the same provisions in its Article XII, using identical language. The refusal of the Soviet Union to consider any form of on-site inspection and verification placed the burden of verification on

satellites from which such systems were not to be hidden. However, the Interim Agreement and the ABM Treaty had important additional lines to their verification provision. At Soviet insistence, the phrase

> "in a manner consistent with generally accepted principles of international law"

was added to the ABM Treaty (Article XII.I) to resolve the Soviet refusal to accept the legitimacy of the legal right of the United States to carry out general surveillance tasks not connected with a particular treaty.

12. In the ABM Treaty, in Article V, paragraph I, each Party undertakes not to develop, test or deploy ABM systems or components which are inter alia space-based. It follows from Articles V and XII of the Treaty, read together, that development begins with those types of activities which can be detected by national technical means, that is primarily photo-reconnaissance satellites. It permits laboratory research for space-based BMD systems. It prohibits field testing of prototypes of such systems or components. The Treaty does not prohibit development and testing of fixed, ground-based BMD laser systems and their components. It also permits the development and testing and deployment of space-based laser devices, such as pointing and tracking devices as long as the devices are not capable of countering strategic ballistic missiles or their elements in flight trajectory and as long as they are not tested in ABM mode. The Treaty thus permits testing of sub-components for space-based BMD lasers while prohibiting component or full systems testing, and, more importantly, deployment of such systems. The Treaty also permits research into all types of BMD systems.

13. The Treaty does not define what "space based" actually constitutes because of international difference of opinion as to where the boundaries between national air space and outer space lie. This topic has been under discussion in UNCOPUOS. The ABM Treaty does not restrict development, testing and deployment of space-based ASATs, however armed. In common with other States Parties, however, both the United States and the Soviet Union may not deploy nuclear armed space-based ASATs as they are both parties to the Outer Space Treaty. In addition to this, as part of the provisions of the ABM Treaty, an ASAT system may not be given capabilities to counter strategic ballistic missiles or their elements in flight trajectory and may not be tested in an ABM mode.

14. Although SALT II Treaty (signed at Vienna in June 1979) remains unratified, both the United States and the Soviet Union have stated that they will abide by its provisions as long as its provisions are respected by the other Party. In Article XV, paragraph 2, it repeats the SALT I and ABM Treaties prohibition on interference with NTM. It also states in Article IX, paragraph IC that each party undertakes not to develop, test or deploy systems for placing into orbit nuclear weapons or any other kinds of weapons of mass destruction, including fractional orbital missiles. This represents a more inclusive ban than that contained in the Outer Space Treaty. As a result, the Soviet Union agreed to dismantle its fractional orbital system.

V. Additional Multilateral Treaties which are relevant to the Space Environment

15. 1977 Environmental Modification (ENMOD) Treaty (which entered into force in October 1978), and the 1979 Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and other Celestial Bodies ("the Moon Treaty") have implications for weapons and disarmament in space. Article II of the ENMOD Treaty states that:

"The term 'environmental modification techniques' refers to any technique for changing-through the deliberate manipulation of natural processes - the dynamics, composition or structure of the Earth, including its biota, lithosphere, hydrosphere and atmosphere, or of outer space".

The addition of "space" was to make the area of prohibition as extensive as possible. As the prohibited techniques remain largely theoretical, and never seemed usable in or from space, the prohibition at present is also theoretical. The Moon Treaty largely repeats in Article III, the bans on military facilities and manoeuvres on celestial bodies contained in Article IV of the Outer Space Treaty. Both stress that the moon is to be used only for peaceful purposes, but the "Moon Treaty" gives it extra prominence, and stresses that its surface cannot be used to direct any hostile act out into space.

16. 1975 Convention of Registration of Objects Launched into Outer Space requires, in Article IV, that the Secretary-General of the United Nations be provided with information concerning space launches, including the general function of the space object. It is not thought that to date any State has registered a space launch for military purposes, despite the fact that it is believed that well over half of all space launches are primarily for military purposes.

17. There are two other agreements worth noting:

(a) Rescue of Astronauts (which came into force in 1968), providing for assistance to astronauts in the event of accident, distress or emergency landing; their return and that of objects launched into space. About 100 States are parties to this treaty, including the United States and the USSR.

(b) Damage caused by Space Objects (which came into force in 1972) providing for rules and procedures on liability for damage caused by space objects. About 55 States are parties, including the United States and the USSR.

CONFERENCE ON DISARMAMENT

CD/639
21 August 1985

ENGLISH
Original: RUSSIAN

LETTER DATED 21 AUGUST 1985 ADDRESSED TO THE PRESIDENT OF THE CONFERENCE ON DISARMAMENT BY THE REPRESENTATIVE OF THE UNION OF SOVIET SOCIALIST REPUBLICS TRANSMITTING THE TEXTS OF DOCUMENTS CONNECTED WITH THE USSR PROPOSAL "THE BASIC DIRECTIONS AND PRINCIPLES OF INTERNATIONAL CO-OPERATION IN THE PEACEFUL EXPLORATION OF OUTER SPACE UNDER CONDITIONS OF ITS NON-MILITARIZATION"

I have the honour to transmit herewith the texts of documents connected with the USSR proposal "The basic directions and principles of international co-operation in the peaceful exploration of outer space under conditions of its non-militarization".

I should be grateful if you would arrange to have these texts issued as an official document of the Conference on Disarmament.

(Signed) V. ISSRAELYAN

GE.85-63965

PEACEFUL EXPLORATION OF OUTER SPACE

Letter from the Minister of Foreign Affairs of the USSR to the Secretary-General of the United Nations

Sir,

The Soviet Union proposes that an item entitled "International co-operation in the peaceful exploration of outer space under conditions of its non-militarization" should be included in the agenda for the fortieth session of the General Assembly.

This proposal of the Soviet Union is based on the fact that mankind today is faced with a choice: either outer space will make an ever greater contribution towards improving the living conditions of the inhabitants of our planet or it will become a new source of mortal danger to them. The only intelligent choice worthy of man's space age can and must be to prevent the militarization of outer space and preserve it for peaceful activities.

The issue has become urgent. It must be resolved before weapons penetrate into outer space. The danger of this happening is growing every day. Concrete work is already in progress with a view to developing offensive space weapons. If this process is not halted, the arms race will further expand and intensify in every area, absorbing fresh material and intellectual resources and placing insurmountable obstacles in the path of the joint peaceful space activity of States.

The Soviet Union proposes that the General Assembly should once again resolutely call upon all States, especially those with a major space potential, to reach agreement without delay on effective measures to prevent an arms race in outer space, thus creating the conditions for broad international co-operation in the exploration and use of outer space for peaceful purposes.

The Soviet Union proposes the adoption of a set of concrete measures which would help States to join their efforts in the peaceful exploration of outer space and the utilization of space technology for the good of all States, among other things providing developing countries with all-round assistance in this field. It is obvious that the successful solution of this problem, which affects the whole of mankind, will become possible if agreements can be reached effectively ensuring the non-militarization of outer space.

Motivated by the desire to promote rapid progress with regard to ensuring the peaceful exploration of outer space, the Soviet Union submits for consideration at the forthcoming session of the General Assembly a document entitled: "The basic directions and principles of international co-operation in the peaceful exploration of outer space under conditions of its non-militarization (proposals by the USSR)".

I would be grateful if you would consider this letter as an explanatory memorandum as provided for under the rules of procedure of the General Assembly and have it distributed, together with the attached document "The basic directions and principles of international co-operation in the peaceful exploration of outer space under conditions of its non-militarization (proposals by the USSR)" and draft resolution, as official documents of the General Assembly.

(Signed) E. SHEVARDNADZE
Minister of Foreign Affairs
of the USSR
Pravda, 17 August 1985

THE BASIC DIRECTIONS AND PRINCIPLES OF INTERNATIONAL CO-OPERATION IN THE PEACEFUL EXPLORATION OF OUTER SPACE UNDER CONDITIONS OF ITS NON-MILITARIZATION

(Proposals by the USSR)

The breakthrough into outer space and the transition towards the practical utilization of its limitless expanses represents one of mankind's most outstanding scientific and technical achievements.

In the historically brief period which has elapsed since the launching by the Soviet Union of the world's first artificial Earth satellite in 1957 and the launching in 1961 of the space ship "Vostok" piloted by Yuri Gagarin, the planet's first cosmonaut, a gigantic leap forward has been made in the peaceful exploration of outer space.

Man has, in essence, begun to settle in near space. Today, hundreds of satellites are in orbit, along with permanent stations in which teams of scientific and technical experts, including international teams, relieve one another and work for months at a time. Interplanetary scientific stations are venturing out to the depths of the solar system. Systematic studies of the Moon, Venus and Mars are being conducted with the help of spacecraft. Mankind's horizons in space are becoming ever broader and greater.

However, the possibility of outer space being transformed into a source of grave military danger is now growing. Plans are being announced and actions undertaken aimed at the development and deployment of offensive space weapons for the destruction of objects in space and, from space, in the air and on the Earth, including the development of a large-scale anti-missile system with space-based elements.

The implementation of plans for the militarization of space would lead to an abrupt intensification of the nuclear threat and would deprive peoples of any hope that a day might come when nuclear weapons will disappear from the face of the Earth. More than that, the arms race would acquire a qualitatively new and still more dangerous dimension in every respect. It would consume colossal new resources, which could serve the peaceful development of mankind and the solution of the vital problems facing it.

Like a grave, incurable disease, militarization would strike at all spheres of space activity and create insurmountable obstacles blocking the development of international co-operation in the peaceful exploration of outer space.

The peoples and Governments of all countries must realize the scale of the task facing mankind and the full measure of their historical responsibility for resolving it.

We have reached a point in the development of civilization when either an age of large-scale exploration and utilization of outer space for the good of man will begin or outer space will become a source of lethal danger to man.

The Soviet Union is a firm opponent of competition in any arms race, including the space arms race. The efforts at present being undertaken by the USSR to prevent the militarization of outer space represent the continuation of a consistent policy specifically aimed at ensuring the utilization of outer space for the good of mankind. When blazing the first trails in space, as far back as in 1958 the USSR submitted a proposal in the United Nations providing for the prohibition of the utilization of outer space for military purposes.

Although it proved impossible at that time to find a radical solution to the problem of the non-militarization of space, important agreements were concluded in the 1960s and 1970s which substantially limited the possibilities of its military use. We refer to the multilateral treaties on the banning of nuclear weapon tests in the atmosphere, in outer space and under water (1963), the principles governing the activities of States in the exploration and use of outer space, including the Moon and other celestial bodies (1967), the Soviet-United States Treaty on the Limitation of ABM Systems (1972) and a number of other agreements.

These instruments created favourable conditions for the first steps towards the establishment of mutually advantageous co-operation among States in outer space. Today, too, if the entry of weapons into outer space was effectively blocked, States would have an opportunity to unite their efforts and resources so that the results of the space activities of all States might serve not destructive but creative ends and contribute to the development of all peoples of our planet.

The USSR is in favour of such co-operation. It turns to all countries and peoples with a proposal to do everything in order to avert an arms race in space and to work together on its peaceful exploration and utilization for the good of all mankind.

One. The non-militarization of outer space, whereby States would refrain from the development (including scientific research work), testing and deployment of offensive space weapons and unite their efforts in peaceful space activities, would assist the expansion of mutual understanding and co-operation between them and promote the efficient use of mankind's material and intellectual resources. This would give fresh impetus to the development of science and technology and open up truly limitless prospects for the use of developments in space to assist the economic and social progress of peoples and the solution of the global problems facing mankind, including such urgent problems as eliminating famine and disease and overcoming the economic backwardness of developing countries by, among other things, providing them with assistance.

Global peaceful co-operation in space research would be organized and would develop on a rising curve - from the exchange of scientific and technological information and simple forms of co-operation to the pooling of States' existing possibilities for solving large-scale problems of space exploration.

Mankind would thus also be able to attain such long-term goals as the industrialization of near space in the sense of the integration of space complexes designed for various purposes into the terrestrial economies of States and the operation of orbital factories and plants for the manufacture of new materials and industrial products in the high vacuum of zero-gravity. The inexhaustible reserves of outer space, including the resources of celestial bodies and solar energy, would be placed at the service of man.

Two. The USSR considers that international co-operation in the peaceful use of outer space could be pursued principally in the following directions:

1. Fundamental scientific research into outer space, including the Moon and other celestial bodies, and the launching of interplanetary spacecraft for these purposes;

2. The application of the results of space research, experiments and the utilization of space technology, inter alia in fields such as biology, medicine, the study of materials, weather forecasting, climatic and environmental studies, global satellite communications systems, remote sensing of the Earth with a view to obtaining data for geology, agriculture and the exploration of the oceans and seas, and the search for, detection and rescue of victims of accidents at sea and in the air;

3. The development and utilization of space technology, including major international orbital scientific stations, as well as piloted spacecraft of various types.

Three. The peaceful exploration of outer space must be pursued within the framework of the strict observance of previously concluded treaties aimed at the prevention of an arms race in space, as well as on the basis of the following general principles derived from the Charter of the United Nations:

The non-use of force or threat of force, the settlement of disputes exclusively by peaceful means;

Equal rights, respect of sovereignty, and non-interference in the internal affairs of States;

Co-operation in good faith, mutual assistance and due consideration for the interests of other States.

Four. In order to organize and implement co-operation among States, steps could be taken to establish a world space organization for international co-operation in the peaceful exploration and use of outer space under conditions of its non-militarization;

Such an organization would be called upon to:

Ensure that all States without discrimination have access, on the basis of mutual advantage, to the results of scientific and technological developments connected with the study and peaceful exploration of outer space;

Prepare international projects aimed at concerting efforts and resources for the scientific exploration of outer space and the utilization of space technology.

Provide developing countries with all-round assistance in joining in the exploration and use of outer space and in using the practical results of such activities in order to accelerate their economic and social development in accordance with their needs and without any conditions infringing their sovereignty.

Co-ordinate, on an international scale, the activities of other international organizations in the sphere of the peaceful use of outer space;

Assist, where necessary, in monitoring the observance of agreements already concluded or to be concluded with a view to preventing an arms race in outer space.

Five. The USSR proposes that a representative international conference be convened with the participation, inter alia, of States possessing a major space potential for the purpose of considering every aspect of the question of international co-operation in the peaceful exploration of outer space under conditions of its non-militarization and agreeing on the basic directions and principles of such co-operation.

This same conference would also consider the question of setting up a world space organization for international co-operation in the peaceful exploration and use of outer space, bearing in mind that the practical establishment of such an organization can be embarked upon once agreements have been reached effectively ensuring the non-militarization of outer space.

* * *

The peaceful exploration of outer space, as men already know by experience, can yield a great deal for the development and improvement of life on Earth. The Soviet Union is convinced that outer space - part of the common heritage of mankind - must be placed not in the service of war but in the service of peace and security and the economic and social progress of all peoples. The way towards this lies through the combined collective efforts of all States of our planet.

In a spirit of goodwill and a sense of responsibility for the destiny of our planet, the Soviet Union appeals to all countries and peoples to embark together on this historic task. Desirous of making its contribution to the common cause, it submits for the consideration of the United Nations these proposals on the basic directions and principles of international co-operation in the peaceful exploration and use of outer space under conditions of its non-militarization.

Draft resolution of the General Assembly

INTERNATIONAL CO-OPERATION IN THE PEACEFUL EXPLORATION OF OUTER SPACE UNDER CONDITIONS OF ITS NON-MILITARIZATION

The General Assembly,

Determined to ensure that the exploration and use of outer space constitutes a sphere of broad, equitable and mutually advantageous international co-operation in conditions of peace,

Recognizing the vital need, before it is too late, to prevent an arms race in outer space which would lead to a sharp increase in the danger of nuclear war, undermine prospects of arms limitation and reduction in general and create insuperable obstacles to the development of international co-operation in the peaceful exploration of outer space,

Guided by the desire to ensure that the exploration and utilization of outer space should as effectively as possible serve the scientific, technical, economic and social progress of all peoples and help solve the global problems facing mankind, including problems of development and the eradication of economic backwardness,

1. Calls upon all States, especially those with a major potential in the space field, to do everything for the adoption of effective measures to prevent an arms race in outer space, thereby creating the conditions for broad international co-operation in the exploration and use of outer space for peaceful purposes;

2. Expresses the conviction that, given effective guarantees of the non-militarization of outer space, a major practical step towards its peaceful exploration and the development of international co-operation in this field would be the establishment of a world space organization for concerting, co-ordinating and uniting the efforts of States in peaceful space activities, including the provision of assistance to developing countries in this field, and also for assisting in the necessary monitoring of the observance of agreements already concluded or to be concluded with a view to preventing an arms race in outer space;

3. Resolves to convene, not later than in 1987, an international conference with the participation of States possessing a major space potential and other interested countries for the purpose of considering every aspect of the question of international co-operation in the peaceful exploration and utilization of outer space under conditions of its non-militarization and agreeing upon the basic directions and principles of such co-operation. The conference would also consider the question of the establishment of a world space organization, bearing in mind that the practical establishment of such an organization could be embarked upon when agreements have been reached effectively ensuring the non-militarization of outer space;

4. Establishes an open-ended preparatory committee with the participation of States possessing a major potential in the field of space for the purpose of convening the international conference;

5. Proposes to the preparatory committee that it submit a report on its work and appropriate recommendations to the General Assembly at its forty-first session;

6. Invites all States to communicate any views or proposals relating to the convening of the international conference to the Secretary-General not later than 1 March 1986 for transmission to the committee;

7. Decides to include in the provisional agenda of its forty-first session an item entitled "International co-operation in the non-militarization and peaceful exploration of outer space".

CONFERENCE ON DISARMAMENT

CD/641
26 August 1985
Original: ENGLISH

REPORT OF THE AD HOC COMMITTEE ON PREVENTION OF AN ARMS RACE IN OUTER SPACE

1. Introduction

1. At its 304th plenary meeting on 29 March 1985, the Conference on Disarmament adopted the following decision:

In the exercise of its responsibilities as the multilateral disarmament negotiating forum in accordance with paragraph 120 of the Final Document of the first special session of the General Assembly devoted to disarmament, the Conference on Disarmament decides to establish an Ad Hoc Committee under item 5 of its agenda entitled "Prevention of an arms race in outer space".

The Conference requests the Ad Hoc Committee, in discharging that responsibility to examine, as a first step at this stage, through substantive and general consideration, issues relevant to the prevention of an arms race in outer space.

The Ad Hoc Committee will take into account all existing agreements, existing proposals and future initiatives and report on the progress of its work to the Conference on Disarmament before the end of its 1985 session.

II. Organization of work and documents

2. At its 314th plenary meeting on 20 June 1985, the Conference on Disarmament appointed Ambassador Saad Alfarargi (Egypt) as Chairman of the Ad Hoc Committee. Miss Aida Luisa Levin, United Nations Department of Disarmament Affairs, served as the Committee's Secretary.

3. The Ad Hoc Committee held 20 meetings between 24 June and 26 August 1985.

4. At their request, the Conference on Disarmament decided to invite the representatives of the following States not members of the Conference to participate in the meetings of the Ad Hoc Committee: Austria, Denmark, Finland, Greece, Ireland, New Zealand, Norway and Spain.

5. The Ad Hoc Committee had before it the following documents relating to the agenda item submitted to the Conference on Disarmament during the 1985 session:

CD/579 China's Basic Position on the Prevention of an Arms Race in Outer Space;

CD/584 Decision on the establishment of an Ad Hoc Committee on Item 5 of the Agenda entitled: "Prevention of an Arms Race in Outer Space";

CD/606 Letter dated 2 July 1985 from the Permanent Representative of Canada transmitting a two volume compendium of CD Verbatim Records and Working Papers submitted to the Conference on the subject of the Prevention of an Arms Race in Outer Space;

CD/607 "Prevention of an Arms Race in Outer Space", Working Paper of a group of socialist countries (also issued as CD/OS/WP.3);

CD/611 Letter dated 9 July 1985 addressed to the President of the Conference on Disarmament from the Representative of the USSR transmitting the text of the reply of the General Secretary of the Central Committee of the Communist Party of the Soviet Union, Mr. Mikhail Gorbachev, to the Union of Concerned Scientists, published on 6 July 1985;

CD/618 "Survey of International Law Relevant to Arms Control and Outer Space", submitted by Canada (also issued as CD/OS/WP.6);

CD/637 "Principal international agreements which apply or otherwise relate directly or indirectly to outer space", working paper submitted by the United Kingdom (also issued as CD/OS/WP.7);

CD/639 Letter dated 21 August 1985 addressed to the President of the Conference on Disarmament by the Representative of the Union of Soviet Socialist Republics transmitting the texts of Documents connected with the USSR proposal "The basic directions and principles of international co-operation in peaceful exploration of outer space under conditions of its non militarization".

In addition, the Committee had before it the following working papers:

CD/OS/WP.1	List of documents of the Conference on Disarmament relating to agenda item 5: "Prevention of an Arms Race in Outer Space";
CD/OS/WP.2	List of General Assembly resolutions relating to agenda item 5 transmitted by the Secretary-General of the United Nations to the Conference on Disarmament;
CD/OS/WP.3	Prevention of an Arms Race in Outer Space, Working Paper of a group of socialist countries (also issued as CD/607);
CD/OS/WP.4	Programme of work for the Ad Hoc Committee on the Prevention of an Arms Race in Outer Space, proposed by a group of socialist countries;
CD/OS/WP.5	1985 Programme of Work;
CD/OS/WP.6	"Survey of International Law Relevant to Arms Control and Outer Space", submitted by Canada (also issued as CD/618);
CD/OS/WP.7	"Principal international agreements which apply or otherwise relate directly or indirectly to outer space", working paper submitted by the United Kingdom (also issued as CD/637);
CD/OS/WP.8	Proposals of Sweden relating to prevention of an arms race in outer space;
CD/OS/WP.9	Conclusions drawn by a group of socialist countries from the consideration by the Ad Hoc Committee of the issues included in its programme of work.

III. Substantive work during the 1985 Session

6. Following an initial exchange of views, the Ad Hoc Committee, at its sixth meeting, adopted a programme of work for the 1985 session (CD/OS/WP.5) containing the following points:

(a) Consideration of issues relevant to the prevention of an arms race in outer space;

(b) existing agreements relevant to the prevention of an arms race in outer space;

(c) proposals and future initiatives on the prevention of an arms race in outer space.

In order to give equal treatment to those subjects, the Committee further decided to allocate three meetings to each.

7. In accordance with the programme of work, delegations exchanged views regarding issues relevant to the prevention of an arms race in outer space.

8. Some delegations stressed that outer space was the common heritage of mankind and that, consequently, the exploration and exploitation of outer space should be preserved for exclusively peaceful purposes to promote the scientific, economic and social development of all countries. Some of the above delegations noted that up to the present, outer space had been an area free of weapons but that there was a growing threat of the emergence of "active" space systems, mainly for anti-ballistic and anti-satellite warfare. In their view, such developments posed an imminent risk that the military competition between the two major nuclear-weapon States would extend into outer space. All the above delegations expressed concern at the extensive use of outer space for military purposes that was already taking place. They pointed out that the majority of space objects now in orbit, while not meant as weapons or as weapons platforms, served military functions and constituted integral parts of weapons systems on earth and of strategic doctrines associated with the use of nuclear weapons.

9. Some delegations emphasized that the development of new space weapon systems will lead to an acceleration of the arms race, both horizontally and vertically, at the cost of existing legislation relating to outer space, arms limitation agreements and the disarmament process as a whole; amplify prevailing military assymetries between the two major space Powers and their allies, on the one hand, and the non-aligned and neutral States, on the other; and will lead to the

introduction of new weapon technologies into regions not directly concerned with either of the two major space Powers, further undermining their security.

10. There was also criticism by some delegations concerning the use of reconnaissance and surveillance satellites by space Powers to monitor strategically-vital information about countries that have no way of controlling or having access to such information. Furthermore, the attention of the Committee was drawn to the fact that there had been instances where satellites had been used in support of military operations against developing countries. In this view, that situation, which had important implications for the security of most countries, did not reflect recognition of the common interest of all mankind in the progress of the exploration and use of outer space for peaceful purposes, as stated in the preamble of 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.

11. Delegations of the group of socialist countries fully shared the view that outer space is the common heritage of mankind and that, consequently, its exploration and use should be preserved for exclusively peaceful purposes in order to promote scientific, economic and social development of all countries. They noted that up to the present, outer space has been an area free of weapons and that urgent measures have to be taken in order to prevent the extension of the arms race to outer space.

12. The same delegations emphasized that there was increasing concern at the threat of the spread of the arms race to outer space. In their view, this threat stemmed from the programme known as the "Strategic Defence Initiative", which is not a research programme as it is stated but aimed at the development and deployment in space of a new class of armament - attack space weapons.

13. These delegations elaborated on the adverse political,military,economic and other consequences that, in their opinion, an arms race in space would have. These consequences included destabilization of the strategic situation; increased threat of the outbreak of nuclear war; acceleration of the arms race in all

directions and growth of nuclear arsenals; undermining of existing treaties and of the prospects for arms limitation and reduction, and increase of military tension; vast unproductive expenditures; damage to the peaceful use of space and obstacles to international co-operation in the peaceful use of space.

14. Some other delegations shared the view that outer space was the common heritage of mankind and that, consequently, the exploration and use of outer space should be preserved for exclusively peaceful purposes to promote the scientific, economic and social development of all countries. They also shared the genuine concerns expressed on the part of many countries on the subject of the prevention of an arms race in outer space. They noted, however, that outer space is presently not, in fact, an area free of weapons. They stressed that the first task of the Ad Hoc Committee was to clarify ambiguities surrounding the existing legal régimes in outer space in terms of what was permitted, what was prohibited, what grey areas might exist and what gaps required attention. They pointed out that there was no agreement on the meaning of such basic terms as "peaceful purposes" or "militarization". It was noted that many activities in space, while of a military character, served a variety of functions that contributed to stability and to monitoring the implementation of disarmament agreements. In that context, these delegations mentioned the problem of the protection of satellites and pointed out that there were differing views regarding the protection already afforded by the existing legal régime, whether that protection needed to be strengthened and, if so, what scope it should be given. In their view, the consideration of proposals for additional measures to prevent an arms race in outer space presupposes that the Committee reaches a prior common understanding of what is permitted and what is prohibited.

15. With respect to the question of whether there was a threat of an arms race in outer space, one delegation noted that it believed that outer space should only be used for peaceful purposes and to that end it was engaged in bilateral negotiations. It was ready in the Ad Hoc Committee to discuss issues relating to outer space in a manner consistent with, and complementary to, the bilateral negotiations. It stressed that the Strategic Defence Initiative was only a research programme that was consistent with all international obligations of

its country, including existing treaties. It pointed out that one country possessed currently operational capabilities in this area and, for many years, had been conducting research into advanced technologies for strategic defence.

16. One delegation answered that its country had not been conducting research into advanced technologies for strategic defence.

17. Some delegations stressed that the ambiguities surrounding the existing legal régime could only be resolved or clarified in the process of elaboration of new agreements, as none other than States Parties to existing treaties had the competence to interpret those legal instruments. Those delegations believed that as far as the international community was concerned, the calling into question of the meaning of the terms in international instruments by States Parties themselves, placed these instruments in jeopardy. Therefore, these delegations emphasized that reference to ambiguities in existing legal instruments would be devoid of meaning and even have the effect of diverting attention if made outside the framework of negotiations of further agreement or agreements to prevent an arms race in outer space. In this context they expressed the need to engage in the preliminary task of clarifying ambiguities surrounding weaponization of outer space and the "state of art" in space weapons within the context of negotiation. In particular, the need to reach agreement on the meaning of such basic terms as "peaceful purposes", "militarization", or "weapons of mass destruction", especially since recent developments in weapon technology have blurred the traditionally accepted interpretation of those terms among the space powers.

18. All delegations welcomed the initiation of bilateral negotiations on space and nuclear arms and recognized their importance. At the same time, they stressed the importance of, and need for, a multilateral approach to issues relating to the prevention of an arms race in outer space.

19. Many delegations considered that the two negotiating parties should bear constantly in mind that not only their national interests but also the vital interests of all the peoples of the world are at stake and, accordingly, should keep the General Assembly and the Conference on Disarmament duly informed of the progress of their negotiations, without prejudice to the progress of the negotiations. These delegations further believed that bilateral negotiations do not in any way diminish the urgent need to initiate multilateral negotiations in the Conference on Disarmament on the prevention of an arms race in outer space.

20. With respect to existing agreements, multilateral as well as bilateral, relevant to the prevention of an arms race in outer space, the Group of Socialist delegations emphasized that there exists already an international legal régime which places certain limitations on various arms and military activities in outer space. In their view, however, all the agreements are not sufficient to put an effective barrier against the extension of the arms race into space, as they leave open certain channels, such as the development and deployment in outer space of weapons or systems of weapons not defined as weapons of mass destruction, or the deployment of certain weapons-systems to be used against objects in space, or used from space against objects on Earth. They have concluded, therefore that concrete measures are needed urgently to prevent such developments as they would entail dangerously destabilizing consequences.

21. Some delegations answered that there already exists a substantial body of law - both customary and treaty law - that is applicable to activities in space. Adherence to this body of law provides assurance that outer space will only be used for peaceful purposes.

22. With respect to the legal régime applicable to outer space, it was stressed that, as affirmed in the 1967 Outer Space Treaty, activities in the exploration and use of outer space should be carried out in accordance with international law, including the Charter of the United Nations. In this connection, some delegations noted the relevance of the provisions of Article 2 (4) of the United Nations Charter concerning the non-use of force.

23. Some delegations considered that those provisions constituted a central element of the legal régime in outer space. They noted that the prohibition of the use of force was subject to Article 51 of the Charter, which recognizes the inherent right of individual and collective self-defence in case of armed attack. They expressed the view that Article 2 (4) of the Charter already afforded protection to space objects and that, therefore, this should be taken into account when considering the need for additional measures for the protection of satellites against the use of force.

24. Other delegations, while recognizing the importance of the general principle on the non-use of force, as laid down in the United Nations Charter, noted that it did not preclude the militarization of outer space, as evidenced by the conclusion of international agreements specifically relating to outer space,

inter alia, the 1967 Outer Space Treaty. It was also noted that Article 2 (4) did not prohibit the development, testing and deployment of strike space weapons. Furthermore, in regard to the reference to Article 51 of the Charter, they reiterated that this Article could not be invoked to justify the use or threat of use of force from outer space.

25. In the consideration of existing agreements, delegations discussed a number of multilateral and bilateral instruments, inter alia, the Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and under Water (1963), the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (1967), the Convention on Registration of Objects Launched into Outer Space (1975), the Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques (1977), the Agreement Governing the Activities of States on the Moon and other Celestial Bodies (1979) and the Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Limitation of Anti-Ballistic Missile Systems (1972). In this connection, reference was made to documents CD/OS/WP.6 and CD/OS/WP.7.

26. Considerable attention focused on the 1967 Outer Space Treaty and the significance of the Treaty was generally underlined. At the same time, various delegations stated that the Treaty contained terms that lent themselves to different interpretations. In addition, a number of delegations believed that, because of its limited scope, the Treaty was not sufficient to prevent an arms race in outer space. They pointed out that, while the Treaty, together with the Moon Treaty, provided for the complete demilitarization of the moon and other celestial bodies, as well as for their orbits and trajectories, as far as the orbit around the Earth was concerned, it only prohibited the placement there of any object carrying nuclear weapons or any other kind of weapons of mass destruction, or the stationing of such weapons in outer space in any other manner. In their view, therefore, there was a risk that the Treaty could be considered by some to leave open a number of options for the military use of outer space. This, however, in the judgement of these delegations, would run counter to the spirit of the Treaty, since its Preamble sets down that outer space should be used for peaceful purposes. Two delegations held that the arms control régime

applicable to outer space was far more comprehensive than the arms control régime on Earth. In this view, the Outer Space Treaty, together with the Partial Test Ban Treaty which, inter alia, prohibited nuclear explosions in outer space, had the effect of making outer space a nuclear-weapon-free zone.

27. Various delegations referred to the 1975 Registration Convention requiring States of registry to furnish to the Secretary-General of the United Nations information concerning space objects, including their general function. Those delegations felt that this Convention, if adequately implemented, could serve as a valuable confidence-building measure in that it would give greater transparency to outer space activities.

28. Some delegations held that the examination of the existing legal régime undertaken by the Ad Hoc Committee had confirmed the need to clarify ambiguities and arrive at consensus interpretations of what was permitted and what was prohibited. Many delegations held that the work of the Committee would be most successful if it proceeded by undertaking a complete examination of the present legal régime aimed at a common understanding of that régime. Other delegations believed that the discussion had shown that the existing body of international law applicable to outer space contained many loopholes to prevent effectively an arms race in outer space. Therefore, they believed that it was imperative to commence negotiations immediately with a view to arriving at agreement or agreements that will prevent such an arms race in outer space. Many other delegations pointed out that the Committee should instead direct its work towards practical measures preventing an arms race in outer space in all its aspects as recommended by United Nations General Assembly resolution 39/59.

29. A number of views and proposals were brought to the attention of the Committee (CD/274, CD/476, A/39/243, CD/607; CD/357, CD/PV.263, CD/540, para. 109; CD/540, para. 110; CD/579; CD/PV.252, CD/PV.301, CD/OS/WP.8; CD/PV.279; CD/PV.318; CD/PV.325).

30. Stressing the need to block all channels for the extension of the arms race into outer space, delegations of the group of socialist countries drew attention to the draft treaties on the prohibition of the stationing of weapons of any kind in outer space, submitted in 1981, contained in document CD/274, and on the prohibition of the use of force in outer space and from space against the Earth, submitted in 1983, contained in document CD/476, and to the proposal on the use

of outer space exclusively for peaceful purposes for the benefit of all mankind, submitted in 1984. They also referred to their proposal, which called for an agreement on the prohibition and elimination of an entire class of weapons, namely, attack space systems of any kind - conventional, nuclear, laser, particle-beam or any other form - whether manned or unmanned. Such space systems should not be developed, tested or deployed, either for anti-missile defence or as anti-satellite systems, or for use against targets on Earth or in the air and systems that had already been developed should be destroyed. In their view, all these proposals provided a constructive basis for working out an agreement or agreements for the prevention of an arms race in outer space. In their opinion, which was shared by other delegations, a first step in that direction would be for other States to join in the unilateral moratorium already declared by one State on the launching of anti-satellite weapons in outer space, which would be in force as long as other States acted in the same way. These delegations were of the view that the 1983 draft treaty submitted to the Conference in document CD/476 was a good basis for conducting negotiations on the problem under consideration.

31. In connection with the latter proposal, some delegations observed that the text concerned had serious deficiencies, inter alia, because of its unequal approach, the imprecision of its definitions, and its lack of effective verification proposals.

32. Some other delegations rejected those assertions and pointed out that, if such preliminary observations had any ground at all, they could be considered in the course of the negotiations with a view to elaborating a generally agreed comprehensive agreement to prevent an arms race in outer space.

33. Various delegations referred to suggestions or proposals concerning the prohibition of anti-satellite systems and the protection of satellites. The view was expressed that the main task should be to negotiate an international treaty banning all space weapons, including weapons directed against targets in space. Such a ban should cover the development, testing and deployment of ASAT weapons on Earth, in the atmosphere and in outer space and should include the destruction of existing ASAT systems. Furthermore, in this view, damage, disturbance and harmful interference in the normal functioning of permitted space objects should be forbidden in international agreements in order to strengthen the Outer Space Treaty and confirm the International Telecommunications Convention.

34. Some delegations noted that there were a number of questions that would have to be addressed in the consideration of a ban on ASAT systems, inter alia, the definition of anti-satellite weapons, the problem of dual-purpose space craft and the problems posed by the fact that ABM and ASAT technologies shared common elements. It was suggested that, taking into account the need to assure the verifiability of eventual treaty commitments, the first objective should be to prohibit untested anti-satellite systems, i.e., systems capable of hitting satellites in high orbit. The desirability of a ban on such systems was stressed on the grounds that high altitude satellites performed a number of stabilizing functions. The view was expressed that an agreement banning the development, testing and deployment of high-altitude ASAT systems should be regarded as a first step towards more comprehensive agreements to prevent an arms race in outer space.

35. Various delegations noted that bilateral agreements, such as the 1972 ABM Treaty and the two SALT agreements, provided protection for satellites of the parties that served as national technical means of verification and suggested the desirability of multilateralizing that immunity to cover the satellites of third countries.

36. On this question, the view was also expressed that the Conference on Disarmament should, in its exploration of issues relevant to arms control in outer space, consider the possibility of the protection from attack of all satellites which contributed to the preservation of strategic stability and which were instrumental in monitoring arms control and disarmament agreements. Furthermore, this same protection should be extended to the ground stations essential for the operation of those satellites.

37. One delegation, recalling that nuclear-weapon States had used military satellites in support of military actions against developing countries, held that this was a major consideration to be taken into account in connection with the question of the protection of satellites. It further stated that international peace and security could not be allowed to depend on such concepts as strategic stability for they lay at the heart of the action/reaction process that perpetuated the nuclear arms race and with it the danger of the annihilation of mankind.

38. In connection with the statement in the paragraph above, some delegations pointed out that strategic stability is an objectively important factor in maintaining and strengthening peace and international security, and that they continued to strive to maintain military balance at the lowest possible level.

39. Other delegations added that the concept of strategic stability and the means of its implementation employed by their countries were fully consistent with the obligations of all States to settle international disputes by peaceful means and to refrain from the use or threat of use of force against the territorial integrity or political independence of any State.

40. Some delegations were of the opinion that all aspects of the arms race in outer space should be dealt with in order to achieve a comprehensive régime to prevent an arms race in outer space. In their view, the principles of demilitarization should be extended to encompass outer space as a whole.

41. Various delegations held that verifiability was a fundamental criterion that should be applied in the consideration of proposals relating to the prevention of an arms race in outer space. They pointed out that, as discussed in document CD/OS/WP.7, in the case of most existing agreements, for example, the ENMOD Convention and the Outer Space Treaty, verification provisions were limited. They suggested that, at the present stage of technical development, some sort of international direct inspection should be applied, including on-site inspection, whenever feasible. Some delegations believed that consideration should be given to the establishment of an international agency to verify compliance so that all Parties may have access to the results of verification. In that connection, a number of delegations referred to the proposal for the establishment of an international satellite monitoring agency. Many delegations supporting the proposal for the establishment of an international satellite monitoring agency, pointed out that it would, inter alia, overcome the credibility gap that besets the existing national technical means of verification. They, however, held that an imposition of verifiability as a fundamental criterion would have the effect of creating an insurmountable obstacle to all attempts at negotiating agreements to prevent an arms race in outer space. They alluded in this context to the relevant paragraphs of the Final Document of the first special session of the General Assembly devoted to disarmament. Other delegations noted in the same

context that one relevant paragraph of the Final Document of the first special session of the General Assembly of the United Nations devoted to disarmament (paragraph 31) states 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. The form and modalities of the verification to be provided for in any specific agreement depend upon and should be determined by the purposes, scope and nature of the agreement. Agreements should provide for the participation of parties directly or through the United Nations system in the verification process. Where appropriate, a combination of several methods of verification as well as other compliance procedures should be employed".

42. Some delegations, noting the inadequacy of the information furnished to the Secretary-General of the United Nations under the 1975 Convention on the Registration of Objects Launched into Outer Space, suggested the need to consider ways and means of improving the implementation and, as appropriate, augmenting the provisions of the Convention so that the international community may have detailed information on the nature and purposes of space activities. They believed that this would be a valuable confidence-building measure and would facilitate verification.

43. Some delegations also mentioned suggestions concerning the possibility of developing, as a confidence-building measure, "rules of the road" for space objects.

44. Some delegations believed that, in view of the advanced technology involved in the exploration and use of outer space, and the fact that only a few States were in a position to benefit therefrom, it was necessary in the consideration of proposals to contemplate ways and means of strengthening international co-operation in the peaceful uses of outer space, so that all States would have access to all areas of space technology without discrimination to promote their economic and social development according to their needs, interests and priorities. It was also suggested that surveillance and reconnaissance activities by satellite should be entrusted to an international body that could set up data banks from which any country would be able to obtain information relevant to its needs. Such a body could also be used to provide advance information on crisis situations, so as to enhance the crisis management role of the United Nations.

45. Some delegations, outlining their general approach to the consideration of proposals relating to the prevention of an arms race in outer space, stated that, in their view, a proposal should meet three criteria. First, the proposal should apply equally to all parties. Second, it should be verifiable. Third, there was the question whether the proposal, even if it applied equally and was verifiable, would, if implemented, enhance stability and security. These delegations were of the opinion that all of the proposals on this subject must meet those criteria.

46. Some delegations questioned the validity of the notion of stability put forward by nuclear-weapon States and their allies as a criterion to assess the need for and desirability of measures to prevent an arms race in outer space. In their view, it was an integral element of strategic concepts and doctrines that reflected the narrow security perceptions of the two alliances vis-à-vis each other. These delegations believed that questions relating to the prevention of an arms race in outer space should be considered in a much broader perspective taking full account of the concerns and interests of non-aligned and neutral countries.

47. In connection with this statement, some delegations recalled that their position concerning the prevention of an arms race in outer space takes fully into account the interests of all countries and peoples and had nothing to do with the "narrow security perceptions" mentioned above.

48. Other delegations reiterated that the criteria used by them in implementing their efforts for the prevention of an arms race in outer space were as follows:

- that outer space is the common heritage of all mankind;
- that the exploration and use of outer space should be preserved for exclusively peaceful purposes in order to promote the scientific, economic and social development of all countries.

Furthermore, in their view, none of their strategic concepts or doctrines were at variance with these criteria.

49. In the opinion of many delegations, the consideration of the proposals put forward before the Ad Hoc Committee had shown that there were areas of agreement on a number of major aspects of the problem and that, consequently, there was a good basis for pursuing the elaboration of an agreement or agreements to prevent an arms race in outer space. Many other delegations were of the view that the discussion, while useful, had been general and preliminary in nature. Some pointed out that for future discussions proposals should be elaborated and refined.

50. A number of delegations emphasized the need for the space powers to demonstrate the necessary political will, not only to avoid further militarization of outer space, but also to recognize that the pursuit of their interests in this sphere cannot take precedence over the interests of the international community.

51. Various delegations believed that, in view of the complexity and technical nature of the subject, the work of the Ad Hoc Committee would benefit greatly from the participation of experts. Accordingly, they suggested that at an early stage during the next session consideration should be given to ways and means of organizing that participation.

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52. Many delegations stressed that they had accepted the mandate because it expressly indicated that there would be a first exploratory stage and that "as a first step at this stage", it would be necessary to examine, "through substantive and general consideration, issues relevant to the prevention of an arms race in outer space". In their view, it was clear from the explicit reference in the last line in the mandate, that the stage referred to must end at the same time as the 1985 session of the Ad Hoc Committee and that next year negotiations should begin with a view to the "conclusion of an agreement or agreements", as appropriate, to prevent an arms race in outer space, as specifically stated in resolution 39/59 approved by 150 votes in favour and none against.

53. Other delegations stressed that in their view, the accepted mandate was a relevant and realistic one that permitted a considerable amount of concrete work which would not interfere, undercut or in any way prejudge the bilateral negotiations under way between the United States of America and the USSR on this issue. Furthermore, those delegations made clear their hope that the mandate would not expire at the end of the 1985 session should the Committee not have completed the kind of exploratory work envisaged by those delegations in the mandate.

54. Delegations of the socialist countries, fully sharing the opinion expressed in paragraph 52 above, upheld the view that the Conference on Disarmament should re-establish the Ad Hoc Committee at the beginning of its 1986 session with an appropriate mandate enabling it to start negotiations on concrete

practical measures urgently needed to prevent an arms race in all its aspects in outer space, as recommended by the relevant resolution of the United Nations General Assembly. Furthermore, the group of socialist countries proposed that Ambassador L. Bayart (Mongolia) be appointed as Chairman of the Ad Hoc Committee on Prevention of an Arms Race in Outer Space for its 1986 session.

55. Other delegations, taking note of the above-mentioned proposal of the socialist countries, stated that further consultations would be necessary in order to examine this matter.

IV. Conclusion

56. The Ad Hoc Committee had a wide-ranging discussion that contributed to clarifying the complexity of a number of problems and to a better understanding of positions. The importance and urgency of preventing an arms race in outer space was recognized by the Committee and, consequently, all efforts should be made to assure that substantive work on the agenda item entitled "Prevention of an Arms Race in Outer Space" will continue at the next session of the Conference.

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SPACE STRIKE WEAPONS

Draft definition

In attempts to define space strike weapons, account must be taken of, inter alia, the following factors:

1. The nature of the weapon
2. The place of deployment of the weapon
3. The location of the target
4. The scientific principle on which functioning of the weapon is based
5. The distinction between anti-satellite (ASAT) and anti-ballistic-missile (ABM) weapons.

1. The nature of the weapon

Any weapon can be used for offensive or defensive purposes and it would seem superfluous to indicate that the definition covers both offensive and defensive weapons. In the case of space weapons, such an express indication is indispensable.

2. The place of deployment of the weapon

There can be no doubt that any weapon located in outer space falls within the category of space weapons, whether the target against which it can be used is exo-atmospheric (situated in space) or endo-atmospheric (situated within the atmosphere: in the air, in water or on land).

3. The location of the target

The concept of space weapons must also cover land-, water- and air-based weapons that are capable of attacking a target situated in outer space.

4. The scientific principle on which the functioning of the weapon is based

This is another important factor, since the definition must be sufficiently broad to cover weapons of every kind, whether they are conventioned weapons, nuclear weapons or weapons of mass destruction and

whether they are based on conventional technology or, if they are based on exotic technology, whatever the principle employed for their operation (high-energy laser beams, microwaves, particle beams, electron beams, kinetic energy, etc.).

5. The distinction between anti-satellite (ASAT) weapons and anti-ballistic-missile (ABM) weapons and systems

The need to draw this distinction stems from the fact that all the foregoing elements are not necessarily present in anti-satellite weapons which, while capable of being deployed in any of the conceivable environments, are exclusively intended to destroy or damage targets located in outer space.

Weapons and systems designed for the interception of ballistic projectiles warrant special treatment within the definition, for they combine the factors mentioned above. To some extent they constitute a separate category since they can comprise endo-atmospheric and/or exo-atmospheric interceptors and can also be deployed in any of the conceivable environments: in space, in the air, in water or on land.

Draft definition

There follows a draft definition in which an attempt has been made to take the above-mentioned factors into account. Rather, what follows is an attempt at a definition that has no other purpose than to stimulate discussion and the exchange of ideas within the Conference on Disarmament and help to elucidate the question which are the weapons that come within the scope of item 5 on the Conference's agenda, "Prevention of an arms race in outer space".

Space strike weapons

"Space strike weapons" means any offensive or defensive device, including its operational components, whatever the scientific principle on which its functioning is based:

(a) capable of destroying or damaging from its place of deployment in outer space an object situated in outer space, in the air, in water or on land;

(b) capable of destroying or damaging from its place of deployment in the air, in water or on land an object situated in outer space.

The following are also space strike weapons: any offensive or defensive device including its operational components, and any system of such devices, whatever the scientific principle on which its functioning is based, that is capable of intercepting, from outer space or from land, water or the atmosphere, ballistic projectiles during their flight.

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Working Paper

Terminology Relevant to Arms Control and Outer Space

Table of Contents

Introduction 2

Documentation of the CD Relating to Outer Space 3

Outer Space Mandate 4

Military Use of Space 4

Weaponization of Space 5

Militarization of Space 5

Terminology from the Outer Space Treaty 5

Freedom for Exploration and Use 6

Concept of Peaceful Purposes: Conflicting Interpretations 8

(a) The Restrictive Interpretation 9
(b) The Non-Restrictive Interpretation 12
(c) "Exclusively for Peaceful Purposes" 13

Conclusion 14

Notes 17

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Introduction

On 25 April 1986, the Conference on Disarmament (CD) agreed to re-establish an ad-hoc Committee on the subject of outer space. Its mandate is "to examine, and to identify, through substantive and general consideration, issues relevant to the prevention of an arms race in outer space".[1] This mandate complements the bilateral negotiations underway by the United States and the Soviet Union whose objectives and process were reconfirmed at the Geneva Summit of November 21 and 22, 1985. It does not undermine, prejudge or in any way interfere with those negotiations, a fact that is absolutely central to the success of both sets of deliberations.

On 23 July 1985, Canada tabled a working paper entitled "Survey of International Law Relevant to Arms Control and Outer Space" (CD/618). In general, it presented a broad interpretation of a variety of views concerning the significance and application of some of the existing treaties. In its conclusion, CD/618 identified certain key definitions, consideration of which could facilitate future deliberations of the CD. This working paper will undertake to consider some of these definitions and like CD/618 it will present a broad interpretation of a number of views.

Among the requisites for success in the arms limitation and disarmament process is the ability to define in agreed ways with reasonable precision the terms of an agreement so as to minimize ambiguity and contradictory interpretations during the negotiations and drafting stages of an agreement and, perhaps most importantly, after the agreement has come into force. Recent events have demonstrated how imprecision in defining treaty obligations has led, in some instances, to controversy regarding compliance with those obligations. While at times, some have argued that "constructive" ambiguity may facilitate negotiation and eventual agreement, such an approach should be used cautiously. It is essential to come to a shared understanding of the nature of an obligation - a commonality of mind - in order to ensure that parties apply the same standards when judging the compliance behaviour of others.

This paper summarizes a range of views concerning certain key terms. The aim of this exercise is to outline the disparity of interpretation that exists at present among international legal experts, which is also reflected in the views of governments. The paper will also focus on some of the words and phrases used in intergovernment discussions of these topics in order to identify some of the confusion which

has resulted from the use of these terms. In the conclusion of this working paper, several observations will be made as to which interpretations are most useful.

The terms discussed in this paper are:

(1) military use of space;
(2) weaponization of space;
(3) militarization of space;
(4) free for exploration and use; and
(5) exclusively for peaceful purposes.

This list is clearly not exhaustive of the important concepts which require further clarification in the CD's discussions. Future working papers might address other terminology.

The outer space issue constitutes an excellent context for such review since it has been, and is, an exemplary area for international cooperation in the endeavour to maintain global peace and security. Since the beginning of the space age, some twenty-nine years ago, the international community has become increasingly aware of the necessity for such cooperation. In order to promote international cooperation in the peaceful use of space, the United Nations General Assembly (UNGA) established the Committee on the Peaceful Uses of Outer Space (COPUOS) as a focus in 1959. In the intervening years, COPUOS has developed an impressive and detailed background of documentation which serves as an authoritative source on terminology and definitions pertinent to outer space in general.

By contrast, the documentation developed by the CD, which is specifically devoted to the arms control aspects of outer space, is significantly less. While the issue has been discussed in plenary in the CD and its predecessors, it was only in 1985 that the CD undertook substantive and sustained consideration of the issue by establishing an ad hoc Committee to focus on the issue in detail. Canada recently tabled a compendium of verbatim statements and working papers from the 1985 CD session (CD/678, 12 March 1986) to assist the CD's deliberations. This was preceded by a similar compendium covering the years 1962-1984 (CD/606, 4 July 1985) and a working paper which discussed arms control and outer space in terms of stabilizing and destabilizing characteristics (CD/370, 26 August 1982).

Documentation of the CD Relating to Outer Space

The final records (PVs) of the 1985 CD session relating to the prevention of an arms race in outer space and its supporting working papers (WP), reveal considerable

imprecision in the use of terms relating to the arms control and outer space. The tendency to use a number of terms loosely, if not recognized and corrected, could have a significant impact on the precision of language and upon the intent of statements, resolutions and treaties. At this early stage of multilateral discussions on issues relating to arms control and outer space, it would be prudent to recognize, clarify and understand fully the nuances of these terms and expressions.

Outer Space Mandate

The mandate for the ad hoc Committee itself is a case in point. It seems reasonable to suggest that in using the word "prevention" in the mandate of the ad hoc Committee the membership of the CD is providing a firm indicator that in its collective view, at present, there is not an arms race in outer space - the argument being that one cannot prevent something if it already exists. This impression appears to be further reinforced by a number of subsequent working papers which contrast "the prevention of an arms race in outer space" with the halting of the arms race on earth[2].

For illustrative purposes, dealing specifically with the 1985 discussions in the CD, three expressions relating to outer space have been selected as indicative of the growing imprecision, and the possible confusion or inadvertent interchange of significantly different terms. These expressions are: a) military use of space, b) militarization of space, and c) weaponization of space.

Military Use of Space

To begin with, it seems reasonable to assume that the use of space for arms control verification is one type of military use of space to which the majority of nations are likely to subscribe. In SALT I, SALT II and the ABM Treaty, the United States and the Soviet Union have accepted, within the parameters of international space law and practice, that the use of national technical means (NTM) - a military use of space - is a legitimate execution of the verification process. As the Canadian working paper CD/320 of 26 August 1982 suggested, this type of military use is inherently stabilizing and therefore should be considered acceptable. Without such an application of the use of military satellites for verification purposes, many significant international arms control agreements would not be possible. Other military uses of space (eg., early warning, communications) can also be viewed as stabilizing.

Weaponization of Space

At the other end of the spectrum, "weaponization of space" seems to refer to the placement of weapons in space or their use in or from space.[3] To the best knowledge of the international community, weapons have not yet been placed in orbit on a permament or semi-permanent basis although it is generally assumed that anti-satellite (ASAT) weapons have been inserted into full or partial orbit for testing purposes on more than one occasion in the past. Apparently, the trajectories of intercontinental ballistic missile (ICBM) systems have not been interpreted to involve the weaponization of space. The important distinction between weapons placed in space, weapons which only transit space on the way to their targets and weapons based elsewhere which are used to attack targets in space, often is blurred in discussions.

Militarization of Space

Between the "military use of space" - which seems acceptable to many nations - and the "weaponization of space" - which appears not to be - falls the concept of "militarization of space". While the term "militarization of space" is particularly vague, it appears to imply less of a military presence than "weaponization" but more so than "military use". The proceedings and working papers of the CD are replete with references to the "prevention" of outer space militarization or the "problem" of "non-militarization" of space.[4] Other states have referred to the need for the "demilitarization" of space. To some states "militarization" seems to be used in the same sense as "weaponization" - that is to refer exclusively to weapons.[5] Other states seem to use the term so as to include any military use of space.[6]

The foregoing brief review suggests that it would be useful for the CD to attempt to arrive at some shared definitions for these three basic but important concepts.

Terminology from the Outer Space Treaty

Several expressions much used in the CD have their origin in the deliberations leading up to the Outer Space Treaty of 1967. Much of this debate took place and continues to occur in COPUOS. The mandates of COPUOS and the CD are distinctive and should avoid unnecessary overlap. Nevertheless, while their responsibilities are clearly delineated, the environment within which both mandates are to be undertaken is the same. Their pertinent terminology and definitions are therefore closely inter-related.

A survey of the legal opinion regarding the Outer Space Treaty and COPUOS documentation relevant to outer space confirms the impression of the imprecise nature and use of many terms. The following two phrases selected from the 1967 Outer Space Treaty are illustrative. They are: a) "freedom for exploration and use" (Article I, para 2), and b) "exclusively for peaceful purposes" (Article IV, para 2).

Freedom for Exploration and Use

The wording of Article I, paragraph 2 of the Outer Space Treaty includes a reference to freedom of both "exploration and use" of outer space.[7] This wording finds its origins in Resolution 1721 (XVI) of the General Assembly[8].

The record of discussion and negotiation of Resolution 1721 and the Outer Space Treaty[9] does not provide much guidance as to the meaning of the terms "exploration" and "use". In particular, it is not clear if the terms were to be used in a cumulative sense - that is, in describing two distinct activities - or if "exploration" was merely a subset of activities defined by the term "use". Furthermore, it is uncertain if the term "use" of outer space was to have a broad meaning, embracing any and all activities in outer space, or if it was to have an a priori limited meaning.

Some legal writers do, however, attempt to clarify the scope of the terms. Three aspects of the principle of freedom of outer space have been distinguished:

1. the right of free access;
2. the right of free exploration; and
3. the right of free use.[10]

The distinction between the right of free exploration and the right of free use is to be found mainly in the substance of the activity. According to one author, the right of free exploration applies to scientific research activities.[11] Such exploration activities do not always have to remain wholly within the spatial limits of outer space; they may also comprise activities on earth connected with scientific space research.

The "free use" principle provides the international legal basis for all activity in outer space. In contrast to the restrictions imposed by other sections of the Outer Space Treaty, Article I, paragraph 2 authorizes space activities, and hence serves as the point of departure for any argument in favour of a particular use of outer space.

Although the "free use" principle is one of the key provisions of the Outer Space Treaty and is sufficiently broad to sustain the right of states to conduct activities in outer space free from claims of sovereignty of subjacent states, it is not unlimited. For example, Article I, paragraph 2 must be read in the context of the "common interests" clause of Article I, paragraph 1 with the result that the advantages to be derived from rapid development of outer space must be balanced against the requirement that it be carried out in a manner beneficial to all members of the international community.

With regard to the "common interests" clause, some authorities take the position that the express requirement to use outer space for the benefit of all members of the international community constitutes no more than a duty upon each member not to misuse outer space in a way which could diminish the value of space activities to other members.[12] Others have taken the position that the phrase means that the use of space objects should not be detrimental to the interests of other countries, including national security and public order.[13]

In addition to the above, the "free use" principle is subject to the following limitations: the non-appropriation clause;[14] the international law clause;[15] the "denuclearization clause";[16] the "responsibility" and "liablity" clauses;[17] the "cooperation and mutual assistance" clause;[18] and the "consultation", "observation" and "information" clause.[19]

Moreover, the right of free use would be subject to several other limitations such as: the "corresponding interests" clause;[20] the practice of "first come, first served" with respect to satellite and space object positioning; and limitations on the use of all finite or specially valuable space resources.

A justification for this view concerning the limitations on "free use" can be found in Article I, paragraph 3 of the Outer Space Treaty which spells out the principle of freedom of scientific investigation without the limitations contained in Article I, paragraph 2, namely non-discrimination, equality and accordance with international law.[21] It has been suggested that activities solely devoted to scientific investigation enjoy a somewhat privileged status in comparison to activities related to the principle of "use".[22]

In applying the requirement that space activities be conducted "for the benefit and in the interests of all

countries" (Article I, paragraph 1) to the question of military activity in outer space, some authorities conclude that space activities can be conducted in the interests of all countries only if they are "peaceful" in nature.[23] It may be argued that since the term "peaceful" is ambiguous and subject to conflicting interpretations, the drafters chose to substitute the equally ambiguous concept of use "in the interests of all countries".[24] Finally, proponents of the view that Article I, paragraph 1 implicitly incorporates the "peaceful use" requirement maintain that since Article IV and other provisions of the Treaty did not completely prohibit placement of weapons in outer space, the term "peaceful uses" was omitted from Article I to avoid ambiguity.[25]

The case for the opposite position is based on the formulation of Article IV, pargraph 2 which expressly limits activities on the moon and other celestial bodies to exclusively peaceful purposes, but in paragraph 1 omits any such limitation with respect to earth orbit. Although some advocates of the "peaceful use" interpretation of Article IV, paragraph 1 explain the omission as the result of imprecise drafting,[26] the omission must be considered intentional since an attempt to apply the phrase "exclusively for peaceful purposes" to all areas of outer space was defeated.[27]

Concept of Peaceful Purposes: Conflicting Interpretations

It would be useful to recall the actual wording of Article IV of the Outer Space Treaty:

> States Parties to the Treaty undertake 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 moon and other celestial bodies shall be used by all States Parties to the Treaty exclusively for peaceful purposes. The establishment of military bases, installations and fortifications, the testing of any type of weapons and the conduct of military manoeuvres on celestial bodies shall be forbidden. The use of military personnel for scientific research or for any other peaceful purposes shall not be prohibited. The use of any equipment or facility necessary for peaceful exploration of the moon and other celestial bodies shall also not be prohibited. (Emphasis added).

Article III of the 1979 Moon Treaty repeats much of Article IV of the 1967 Outer Space Treaty:

1. The moon shall be used by all States Parties exclusively for peaceful purposes.

2. Any threat or use of force or any other hostile act or threat of hostile act on the moon is prohibited. It is likewise prohibited to use the moon in order to commit any such act or to engage in any such threat in relation to the earth, the moon, spacecraft, the personnel of spacecraft or man-made space objects.

3. States Parties shall not place in orbit around or other trajectory to or around the moon objects carrying nuclear weapons or any other kinds of weapons of mass destruction or place or use such weapons on or in the moon.

4. The establishment of military bases, installations and fortifications, the testing of any type of weapons and the conduct of military manoeuvres on the moon shall be forbidden. The use of military personnel for scientific research or for any other peaceful purposes shall not be prohibited. The use of any equipment or facility necessary for peaceful exploration and use of the moon shall also not be prohibited.

Since the conclusion of the Outer Space Treaty, the interpretation of the term "peaceful purposes" has given rise to fundamental problems of definition. For example, does "peaceful purposes" mean non-military or non-aggressive or something else? Does the "peaceful purposes" phrase apply only to the moon and other celestial bodies or also to "outer space", including the moon and other celestial bodies as well as earth orbit? Does the adverb "exclusively" which precedes the term "peaceful purposes" have any particular significance?

Generally speaking, two different approaches can be discerned in the continuing debate. One view is that "peaceful purposes" prohibits only "aggressive" military uses of outer space while permitting "non-aggressive" uses.[28] The opposing view equates peaceful with non-military use.[29]

(a) The Restrictive Interpretation

In 1958, the American Bar Association's Committee on the Law of Outer Space conducted a systematic survey of the growing body of space law literature. In a section on

"The Legal Status of Space" a discussion was included on "The Problem of 'Peaceful Purposes': Military Uses". In part it states: "One difficulty is that the word 'peaceful' is used in various contexts. In the sense of the United Nations Charter, and in international law generally, it is employed in contradiction to 'aggressive'." Further, the report states:

> "For the time being it seems that the only uses of space that are prohibited are those within the prohibition of the Charter, and that until a disarmament agreement dealing with space activities can be arrived at, the United States is justified in using space for non-aggressive military uses consistent with the terms of the Charter...."[30]

A similar restrictive view of the phrase "peaceful purposes" has been applied when interpreting the Outer Space Treaty. According to this view, the lack of prohibitive provisions (except for nuclear and mass destruction weapons) in the Outer Space Treaty indicates that "peaceful" could not signify "non-military". Article IV, paragraph 1 which prohibits the stationing of weapons of mass destruction in outer space omits the express requirement to use celestial bodies for "peaceful purposes" applied by Article IV, paragraph 2. Hence, the "peaceful purposes" requirement applies only to celestial bodies and not to earth orbit. Moreover, Article III, which does apply to earth orbit, requires states to conduct space activities in accordance with international law, including the United Nations Charter under which defensive or non-aggressive military activity is permissable.

It, therefore, seems clear that the drafters of the Outer Space Treaty intended to restrict military activities only to the extent expressed in Article IV. The drafters merely required in Article III "compliance by states with international law and the UN Charter, which do not prohibit military activities but aggression or a threat to, or breach of the peace".[31] In this connection it is worth emphasizing two points. One is that the UN Charter reiterates the inherent right of self-defence, which would probably be diminished under a regime prohibiting all military uses of outer space. Second, in the UN Charter system, the opposite of "peaceful" is "aggressive" and military efforts of states on their own territories or in international areas are not prohibited.[32] It has even been argued that military uses of outer space for deterrent and defensive purposes serves the cause of peace.[33]

Further, at the time of the negotiation and conclusion of the Treaty both major space powers had already launched satellites into outer space for military purposes. Negotiating a complete ban on these satellites in such circumstances would have raised controversial issues falling within the purview of disarmament negotiations.[34]

The space powers have continued to use outer space for military communications and reconnaissance among other military activities. Although these activities are clearly "military" in nature, they are arguably "non-aggressive". This continued practice by states provides further support for the restrictive approach to the interpretation of "peaceful purposes" because by their actions in space the space powers are giving clear meaning to this concept.[35]

Such state practice, it is worth noting, seems to be in keeping with the normal usage of the word "peaceful" as well as the practice on the high seas and in the airspace above the high seas, where military manoeuvres, weapons testing and surveillance have always been considered as peaceful military uses under international law.[36]

Nor has this restrictive interpretation of "peaceful purposes" been solely restricted to Western authors. Kolossov, a prominent Soviet scholar, recently advocated the division of space activities into peaceful and military, and the further breakdown of military space activities into "military aggressive" and "military non-aggressive".

> "Military aggressive activities are illegal according to international law and are regarded as a crime against international peace which gives rise to international responsibility... [In contrast,] non-aggressive military activities in outer space have been limited, but not banned. Such activities might include the use of missiles to repel acts of aggression, the use of various space objects (communications, navigation, meteorological satellites, etc.) as support means for military training, manoeuvres and other activities of different branches of force in time of peace when they are not categorized as acts of aggression, as well as the use of space objects for testing weapons not prohibited by international law."[37]

(b) The Non-Restrictive Interpretation

According to a second school of thought[38] "peaceful" is intended as "non-military". In light of the semantic sense of "peaceful", it is argued, a military activity could never be "peaceful" since there is an underlying threat of violence or, as one author has put it: "No space activity is peaceful when it affects the security of states".[39]

The proponents of this interpretation further submit that the "common interests" clause contained in Article I, paragraph 1 of the Outer Space Treaty can only mean that without being expressly prohibited, military activities with non-nuclear weapons in outer space, even if "defensive" in nature are not lawful, since no military activity could be carried out "in the interests of all countries".[40]. One author argues, for instance, in reference to the "common interest of mankind" principle that:

> In order to avoid misunderstandings and ambiguity inherent to "peaceful", a new principle, implying fixed obligation to use outer space exclusively for peaceful purposes, without specific reference to the language of "peaceful purposes", has been introduced in the text of the Treaty. This has been accomplished through the provision in the principles of the Treaty that the exploration and use of outer space shall be carried out for the benefit and in the interests of all countries. The principle of peaceful purposes has been achieved through a form of circumlocution in which several words are employed rather than the single word "peaceful". This has produced a prescription which is a logical derivation and which undoubtedly excludes all military uses of outer space.[41]

Even the widely claimed stabilizing character of reconnaissance satellites has been questioned. The military functions of these kinds of satellites in several recent conflicts has been highlighted. Only if such satellites are operated under the control of an international agency, it is contended, can the interest of all mankind be served.[42]

Some of those adopting the non-restrictive interpretation, whereby "peaceful" is interpreted as excluding all military activities, also find support by reference to the examples of the demilitarization regime of the Antarctic Treaty and of the International Atomic Energy

Agency (IAEA) Charter.[43] It has been argued, for example, that during the deliberations in COPUOS prior to the conclusion of the Outer Space Treaty, the vast majority of delegates insisted that the word "peaceful" should be interpreted in the sense of "non-military".[44] The inspiration for this approach came from the Antarctic Treaty which states in the opening sentence of Article I(1) that "Antarctica shall be used for peaceful purposes only"; the founding premise of the Treaty being that military purposes, defensive as well as offensive, were not "peaceful".[45]

It has also been contended that the applicability, mutatis mutandis, of Article 1 of the Antarctic Treaty to Article IV (2) of the 1967 Outer Space Treaty, vis-à-vis the moon and other celestial bodies, exists in the sense that a) "peaceful" means "non-military", b) references to military installations, military manoeuvres and so forth in the provision are exemplificative and not exhaustive; and c) the possibility of using military personnel and equipment for scientific research or other peaceful purposes in no way invalidates the contention that "peaceful" means "non-military".[46]

(c) "Exclusively for Peaceful Purposes"

With respect to the question of whether or not the adverb "exclusively" has any additional significance for the meaning of "peaceful purposes", one legal writer is of the opinion that the adverb "exclusively" has no legal significance. He argues that the word is intended merely to emphasize the precepts expressed in Article IV of the Outer Space Treaty.[47]

Kolossov suggests "that all outer space activities may be divided into peaceful and military. Peaceful activities should be understood as exclusively peaceful, i.e., scientific-exploratory and economic."[48]

On the other hand, another legal writer, Markoff, elaborates at considerable length on the significance of the word "exclusively" and its relationship to the term "peaceful purposes". First, he points out that "the main provision on a complete non-militarization of the moon and the other celestial bodies in Article IV (2) contains the expression "exclusively for peaceful purposes", whereas, other sentences of the same paragraph relating to the allowed use of military personnel, facilities or equipment speak merely of "peaceful purposes" or "peaceful exploration". Secondly, he states that "in paragraph 2 of the Treaty's preamble, as well in Articles IX and XI, only the term 'peaceful' has been used."

Markoff then remarks:

> In the system of specific arms control measures set forth in both paragraphs of Article IV, the qualification "exlusively peaceful" characterizes the particular use of the moon and other celestial bodies. This use....excludes all kinds of military and not only "warlike" activities on planets other than the earth. The mandate to use "exclusively for peaceful purposes" does not apply to all of the space environment.[49]

The specific emphasis on "exclusively" can be perceived also by comparison to the 1971 Treaty on the Prohibition of the Emplacement of Nuclear Weapons and Other Weapons of Mass Destruction on the Sea-Bed and the Ocean Floor and in the Subsoil Thereof. Where a complete demilitarization has been established, as in the case of Article IV (2) of the Outer Space Treaty, or has been intended, as in the case of Resolution 1721, the restrictive expression "exclusively peaceful" has been used. Where no complete disarmament has been achieved, as in the case respecting the sea-bed and the ocean floor, only the term "peaceful" has been used. This reference occurs in the preamble in the same way that it appears in the preamble of the Outer Space Treaty and constitutes an acknowledgement, a recommendation and an expectation only.[50]

Conclusion

The foregoing discussion has demonstrated the difficulty in arriving at an unqualified and clear-cut definition of "peaceful purposes". Canada believes, however, that the restrictive interpretation is the most appropriate in view of the negotiating history of the Outer Space Treaty, its actual wording and state practice since its coming into force.

Terms such as "weaponization" and "militarization", which have been widely used, are even more ambiguous. These latter terms are not used in space law and do not even appear to have any generally accepted meaning in political discussions.

As has been pointed out, states have agreed to or acquiesced in the military use of outer space, to a considerable extent. Many of the satellites now in orbit must be considered to be military. The ABM Treaty provides

for verification by "national technical means" including photoreconnaissance satellites, which are clearly military. Such stabilizing military uses of space are highly desirable and should continue without interference. Indeed, they should be supported by the international community and by international law.

Apart from weapons of mass destruction, the placement of weapons in earth orbit has, in the past, not been addressed in any extensive fashion, partly because, until recently, this was not seen as a technically feasible or militarily useful possibility.

The Canadian government maintains that in the absence of developed treaty law in outer space, general international law would apply. This has been explicitly done to some extent already, according to the terms of various outer space conventions.

From the point of view of general international law, outer space is analogous to other environments beyond national jurisdiction, notably the high seas. The Law of the Sea Convention stipulates in article 88 that "the high seas shall be reserved for peaceful purposes". This is a more clear-cut expression of the concept than in fact appears in the Outer Space Treaty. Article 88 has never been intepreted as preventing, for example, the passage of warships or prohibiting maritime military activities such as naval exercises or even weapons tests. Nor has it been seen to ban the stationing of any type of weapons on the high seas. "Peaceful purposes" as this phase applies to outer space must be understood in an analogous fashion. Outer space is open to military activity. If the international community decides on restrictions on certain types of activity which do not otherwise contravene international law, it must do so by specific agreement, as indeed it did to some extent in the Outer Space Treaty. Again an analogy with the law of the sea is relevant. The 1971 Seabed Treaty, as its title states, prohibits "the emplacement of nuclear weapons and other weapons of mass destruction on the seabed and ocean floor". This treaty embodies the prohibition of a particular use of a particular weapon which otherwise would not have been contrary to international law. The same considerations apply in outer space. In the absence of an existing specific prohibition (such as, for example, the one against nuclear weapons) and on the assumption that the activity in question is not contrary to an existing principle of international law (such as non-use of force) the placement of weapons in orbit in space is not per se unlawful.

This is not to say that placing or using weapons in space (or the increased "militarization" or "weaponization" of space) would be a desirable development. However, the elementary level to which space law has so far progressed does not of itself seem an adequate basis on which to prevent such a trend. To prevent the risks to security on earth which may be posed by the threat of weapons placed in space or for use in space will require that states develop the law beyond this elementary stage.

NOTES

1. CD/694, 25 April 1986.

2. See for example: USSR, CD/548, 8 February 1985, page 2;
USSR, CD/570, 27 February 1985, page 2;
and
USA, CD/571, 5 March 1985, page 2.

3. See for example: China, CD/579 19 March 1985, page 1.

4. See for example: Mongolia, CD/PV.273, 17 July 1984, page 9;
USSR, CD/542, 26 October 1984, page 1;
USSR, CD/543, 20 December 1984, page 5;
USSR, CD/548, 8 February 1985, page 3
Hungary, CD/PV.295, 28 February 1985, page 9;
Argentina, CD/PV.296, 5 March 1985, page 27; and
Morocco, CD/PV.301. 21 March 1985, page 22.

5. See for example: USSR, CD/PV.320, 11 July 1985, pages 17-18 and
GDR, CD/PV.303, 28 March 1985.

6. See for example: China, CD/579, 19 March 1985.

7. Article I reads:

> The exploration and use of outer space, including the moon and other celestial bodies, shall be carried out for the benefit and in the interests of all countries, irrespective of their degree of economic or scientific development, and shall be the province of all mankind.
>
> Outer space, including the moon and other celestial bodies, shall be free for exploration and use by all States without discrimination of any kind, on a basis of equality and in accordance with international law, and there shall be free access to all areas of celestial bodies.

There shall be freedom, of scientific investigation in outer space, including the moon and other celestial bodies, and States shall facilitate and encourage international co-operation in such investigation.

8. U.N.G.A Resolution 1721 (XVI), 20 December 1961, "International Cooperation in the Peaceful Uses of Outer Space".

9. U.N. Docs. A/C.1/PV 1210-1214 (December 1961); A/C.1/SR. 1210-1214 (December 1961); see also Stevenson, "International Cooperation in the Peaceful Uses of Outer Space", (1962), 46 Department of State Bulletin 180.

10. Marcoff, Traité de droit international public de l'espace, (1973), 330, 332.

11. Ibid., 331.

12. Ibid., 333.

13. Marcoff, "Implementing the Contractual Obligation of Article I, Paragraph 1 of the Outer Space Treaty of 1967," (1973), 17th Colloq. on the Law of Outer Space 136, 137.

14. Article II of the Outer Space Treaty.

15. Article III.

16. Article IV, para 1.

17. Articles VI and VII.

18. Articles IX and V.

19. Article XV.

20. Article IX.

21. See the wording of Article I, para 3: "There shall be freedom of scientific investigation in outer space, including the moon and other celestial bodies and States shall facilitate and encourage international cooperation in such investigation."

22. Staff Report on the Treaty of 1967, prepared for the use of the U.S. Senate Committee on Aeronautical and Space Sciences, 90th Cong., 1st Sess., 1967, 23.

23. Ibid.

24. Marcoff, "Disarmament and 'Peaceful Purposes' Provisions in the 1967 Outer Space Treaty", (1976), 4 Journal of Space Law 3, 21.

25. Niciu, "What is the Meaning of the Use of Cosmos Exclusively for Peaceful Purposes", (1973), 17th Colloq. on the Law of Outer Space 224, 228.

26. Ibid., 229.

27. Marcoff, supra, note 24, 10.

28. Stein, "Legal Restraints in Modern Arms Control Agreements", (1972), 66 American Journal of International Law 255, 262-4.

29. Gal, Space Law, (1969), 164, 180-1.

30. American Bar Foundation. Committee on the Law of Outer Space. Report to NASA. July 1961, 25-6.

31. Reed and Norris, "Military Use of the Space Shuttle", (1980), 13 Akron Law Review 677.

32. Gal, supra, note 29, 167.

33. Ogunbanwo in International Law and Outer Space Activities, The Hague: 1975, 32; Reed and Norris, supra, note 31, 682; and Fawcett, International Law and Uses of Outer Space, (1968) at 54.

34. Dembling and Arons, "The Evolution of Outer Space Treaty", (1967) 33 JALC 433-4.

35. Butler, "Peaceful Use and Self-Defence in Outer Space", (1982) 25th Colloqium on the Law of Outer Space 77. Furthermore, pursuant to art. 31(3)(b) of the Vienna Convention on the Law of Treaties, in interpreting a treaty, there shall be taken into account "any subsequent practice in the application of the treaty which establishes the agreement of the parties regarding its interpretation". The Treaty is reproduced in (1969) 63 American Journal of International Law 875 et seq.

36. Bridge, "International Law and Military Activities in Outer Space", (1980) 13 Akron Law Review 658. See also Meyer cited at p. 167 in Gal, supra note 29.

37. Kolossov, "Notions of 'Peaceful' and 'Military' Space Activities", (1982) 25th Colloq. on the Law of Outer Space 117, at 118.

38. Chaumont, Le droit de L'espace, (1970), 96; Woetzel, "Sovereignty and National Rights in Outer Space", (1961), 5th Colloq. on the Law of Outer Space 1, 44; Goedhuis, "General Questions on the Legal Regime of Space", in International Association (I.L.A.), (1960), 50th Report 72, 77.

39. Gal, supra, note 29, 171.

40. Marcoff, "Disarmament and 'Peaceful Purposes' Provisions in the 1967 Outer Space Treaty", (1976), 4 Journal of Space Law 3, 7. See also Nozari, Space Law, Moscow, 1979, 200-1; Matte, "Le Traité sur l'espace de 1967 et l'utilisation militaire du milieu extra-atmosphérique", (1983) 7 Ann. D.M.A. 322 et seq.; and Lachs, The Law of Space, (1972) at 106-8.

41. Marcoff, ibid., 11.

42. Matte, supra, note 40.

43. Vlasic, "Disarmament Decade, Outer Space and International Law," (1981) 26 McGill Law Journal 173; Zendalis and Wade, "Anti-Satellite Weapons and the Outer Space Treaty of 1967", (1978), 8 California W.I.L.J. 474; and Marcoff, supra, note 40.

44. Goedhuis, "An Evaluation of the Leading Principles of the Treaty of Outer Space Legislation," (1968), Netherlands International Law Review, 25.

45. Goedhuis, "What Additional Arms Control Measures Related to Outer Space Could be Proposed", in Jasani, (ed.) Outer Space - A New Dimension of the Arms Race (1982), 300. See also Article II of the Statute of the International Atomic Energy Agency (1956).

46. Cheng, "The Legal Status of Outer Space and Relevant Issues.... Delimitation of Outer Space and Definition of Peaceful Use", (1983) Journal of Space Law 99, at 102.

47. Gal, "Activities in Orbit and Celestial Bodies: Two Notions in Peaceful Uses", (1982) 25th Colloquim on the Law of Outer Space 83.

48. Kolossov, supra, note 37, 118.

49. Marcoff, supra, note 40, 16.

50. Ibid., 18, 21.

CD/726
19 August 1986

CONFERENCE ON DISARMAMENT

Original: ENGLISH

REPORT OF THE AD HOC COMMITTEE ON PREVENTION OF AN ARMS RACE IN OUTER SPACE

I. Introduction

1. At its 359th plenary meeting on 24 April 1986, the Conference on Disarmament adopted the following decision:

> "In the exercise of its responsibilities as the multilateral disarmament negotiating forum in accordance with paragraph 120 of the Final Document of the first special session of the General Assembly devoted to disarmament, the Conference on Disarmament decides to re-establish an Ad Hoc Committee under Item 5 of its agenda entitled "Prevention of an arms race in outer space".
>
> The Conference requests the Ad Hoc Committee, in discharging that responsibility, to continue to examine, and to identify, through substantive and general consideration, issues relevant to the prevention of an arms race in outer space.
>
> The Ad Hoc Committee in carrying out this work, will take into account all existing agreements, existing proposals and future initiatives as well as developments which have taken place since the establishment of the Ad Hoc Committee, in 1985, and report on the progress of its work to the Conference on Disarmament before the end of its 1986 session."

II. Organization of work and documents

2. At its 359th plenary meeting on 24 April 1986. the Conference on Disarmament appointed Ambassador Luvsandorjiin Bayart (Mongolia) as Chairman of the Ad Hoc Committee. Miss Aida Luisa Levin, Senior Political Affairs Officer, United Nations Department of Disarmament Affairs, continued to serve as the Committee's Secretary.

3. The Ad Hoc Committee held 16 meetings between 25 April and 19 August 1986.

4. At their request, the Conference on Disarmament decided to invite the representatives of the following States not members of the Conference to participate in the meetings of the Ad Hoc Committee: Austria, Denmark, Finland, Greece, New Zealand, Norway, Portugal, Spain and Turkey.

5. In addition to the documents of the previous session 1/, the Ad Hoc Committee had before it the following documents relating to the agenda item submitted to the Conference on Disarmament during the 1986 session:

1/ The list of documents of the previous session may be found in the 1985 report of the Ad Hoc Committee, which is an integral part of the report of the Conference on Disarmament (CD/642).

CD/678	Letter dated 11 March 1986 addressed to the Secretary-General of the Conference on Disarmament from the Permanent Representative of Canada to the Conference on Disarmament, transmitting a compendium of working papers on the Prevention of an Arms Race in Outer Space and statements made in plenary on that subject;
CD/694	Mandate for an Ad Hoc Committee under item 5 of the agenda of the Conference on Disarmament entitled, "Prevention of an Arms Race in Outer Space";
CD/708	Proposal relating to the prevention of an arms race in outer space: international instrument to supplement the ABM Treaty, submitted by Pakistan (also issued as CD/OS/WP.12);
CD/709/Rev.1	Draft definition of space strike weapons, working paper submitted by Venezuela (also issued as CD/OS/WP.13/Rev.1);
CD/716	"Terminology relevant to arms control and outer space", working paper submitted by Canada (also issued as CD/OS/WP.15);
CD/723	Letter dated 13 August 1986 addressed to the President of the Conference on Disarmament by Representatives of Argentina, India, Mexico and Sweden, transmitting two documents entitled "Declaration of Mexico" and "Document issued at the Mexico Summit on Verification Measures", adopted at Ixtapa, Mexico, on 7 August 1986.

In addition, the Committee had before it the following working papers:

CD/OS/WP.10	Programme of work proposed by the Group of 21;
CD/OS/WP.11	1986 Programme of work;
CD/OS/WP.12	Proposal relating to the prevention of an arms race in outer space: international instrument to supplement the ABM Treaty, submitted by Pakistan (also issued as CD/708):
CD/OS/WP.13/Rev.1	Draft definition of space strike weapons, working paper submitted by Venezuela (also issued as CD/709/Rev.1);
CD/OS/WP.14/Rev.1 and Add.1	Compilation of definitions of space weapons;
CD/OS/WP.15	"Terminology relevant to arms control and outer 12ace", working paper submitted by Canada (also issued as CD/716);
CD/OS/WP.16 and Add.1	List of proposals submitted at the 1986 session.

III. Substantive work during the 1986 Session

6. Following an initial exchange of views, the Ad Hoc Committee, at its sixth meeting on 24 June 1986, adopted the following programme of work for the 1986 session (CD/OS/WP.11):

"1. Examination and identification of issues relevant to the prevention of an arms race in outer space;

2. Existing agreements relevant to the prevention of an arms race in outer space;

3. Existing proposals and future initiatives on the prevention of an arms race in outer space.

In carrying out its work, the Ad Hoc Committee will take into account developments which have taken place since the establishment of the Committee in 1985."

7. The Ad Hoc Committee agreed that in discharging the tasks set forth in its mandate, it would give equal treatment to the subjects covered therein. Accordingly, the Committee further agreed to allocate the same number of meetings to each of those subjects, namely, issues relevant to the prevention of an arms race in outer space, existing agreements and existing proposals and future initiatives. A final summing-up meeting also took place.

8. Pursuant to the programme of work, delegations examined and identified various issues relevant to the prevention of an arms race in outer space.

9. Many delegations reaffirmed that outer space is the common heritage of mankind and should be confined exclusively for peaceful uses to promote the scientific, economic and social development of all nations. Some delegations noted with concern that there is a very real threat that research and development programmes of the two major space Powers and the dynamics of their military competition is being extended into outer space, leading to the development, testing, production and possible deployment of weapons systems and their components adaptable for use in, towards, or from space and to the unleashing of an irreversible competition in the field of space weaponry. Furthermore, they emphasized that an arms race in outer space would undermine existing agreements relating to outer space as well as arms limitation, apart from jeopardizing the disarmament process as a whole, while noting that the development of space weapons technologies by the major Powers and their allies will have an impact which could lead to a qualitative improvement of and linkages with other weapon technologies with dangerous consequences for

non-aligned and neutral countries as well as for international peace and security. Accordingly, they stressed the urgency of the task of preventing the "weaponization" of space. At the same time, these delegations drew attention to the existing military uses of space. It was stated that satellites which performed such functions as monitoring, surveillance, intelligence-gathering, navigation, communication and early warning and provided support to weapons systems and to military operations on Earth were directly linked to the security concerns of the two major space Powers and their allies with dangerous consequences for international peace and security. The view was expressed that to ensure against the inequitable and discriminatory use of such satellites vis-à-vis non-aligned and neutral States their operation should be placed under an international agency.

10. Furthermore, some delegations stated that the majority of space objects now in orbit, while not meant as weapons or as weapons platforms, served military functions and constituted integral parts of weapon systems on Earth and of strategic doctrines associated with the use of nuclear weapons. Those delegations also drew the attention of the Ad Hoc Committee to the fact that there had been instances where satellites had been used in support of military operations against developing countries. In this view, that situation, which had important implications for the security of most countries, did not reflect recognition of the common interest of all States in the progress of the exploration and use of outer space for peaceful uses, as stated in the preamble of the 1967 Outer Space Treaty.

11. Some delegations also identified the issues and activities relevant to the prevention of an arms race in outer space to be dealt with in the Ad Hoc Committee as: weapon systems in space or directed against targets in space; and support of weapon systems and military operations on earth and surveillance systems.

12. Delegations of a group of socialist countries fully shared the view that outer space is the common heritage of mankind and that, consequently, its exploration and use should be preserved for exclusively peaceful purposes in order to promote the scientific, economic and social development of all countries. They noted that up to the present outer space had been an area free of weapons. Those delegations emphasized, however, the impending danger of the spread of the arms race to outer space which, in their view, would step up the arms race in other spheres and would make reductions in nuclear arsenals impossible. They held that the key to the prevention of such an arms race lay in preventing the emergence of a new type of weapons, namely, space

strike weapons. They considered that the prohibition of space-strike weapons, including ASAT weapons, space-based ABM systems and space-to-Earth class weapons would be an effective and secure way to prevent all possibilities for the introduction of weapons into outer space. In their view, conditions at present were suitable for banning such weapons, since they had not yet been introduced in the arsenals of States. They also underlined the importance of maintaining relevant agreements, in particular, the 1972 ABM Treaty. They believed that international cooperation in the peaceful uses of outer space should be an alternative to the arms race in space.

13. Other delegations, while sharing the concern about the prevention of an arms race in outer space, stated that outer space was not, nor had been, immune from utilization by existing weapons or military systems. On the other hand, some such military activities have contributed to strategic stability and arms control and thus to the maintenance of international peace and security. They reiterated the view that the first task that required attention was to establish common ground on which activities were permitted and which ones were prohibited. In addition, these delegations considered that issues relevant to the prevention of an arms race in outer space could not be examined in isolation but should be approached in the wider context of the global process of disarmament. They stated that deployment of space-based BMD systems is not an imminent event. They considered that any such deployment would have to be a matter for negotiation, given existing treaty obligations. They underlined the importance of a thorough examination of issues relating to verification of and compliance with existing, as well as potential future, international agreements.

14. One delegation fully subscribed to the objective of the non-militarization of outer space and its use exclusively for peaceful purposes which, in its opinion, called for the limitation and prohibition of both space weapons and military satellites. It considered that, in view of its complexity, the problem of the limitation and prohibition of military satellites should be dealt with at a future time and that, at the present stage, efforts should focus on preventing the "weaponization" of space, i.e., the prohibition of the development, testing, production, deployment and use of any space weapons and the thorough destruction of existing ones.

15. Delegations examined various multilateral and bilateral instruments, inter alia, the Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Under Water (1963), the Treaty on Principles Governing the

Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (1967), the Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space (1968), the Agreement on Measures to Reduce the Risk of Outbreak of Nuclear War Between the United States of America and the Union of Soviet Socialist Republics (1971), the Convention on International Liability for Damage Caused by Space Objects (1972), the Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Limitation of Anti-Ballistic Missile Systems (1972), the Agreement Between the United States of America and the Union of Soviet Socialist Republics on the Prevention of Nuclear War (1973), the Convention on Registration of Objects Launched into Outer Space (1975), the Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques (1977) and the Agreement Governing the Activities of States on the Moon and other Celestial Bodies (1979).

16. It was noted that, as recognized in the 1967 Outer Space Treaty, activities in the exploration and use of outer space should be carried out in accordance with international law, including the Charter of the United Nations. Some delegations underscored the importance of the Charter provisions, in particular those concerning the non-use of force, namely, articles 2(4) and 51. They stated that provisions of such agreements prohibited any aggressive acts in outer space and, accordingly, afforded a substantial degree of protection to space objects. Other delegations, while acknowledging the importance of the provisions of the United Nations Charter relevant to the prevention of an arms race in outer space, rejected the view according to which article 51 of the Charter could be interpreted as justifying the use of space weapons for defensive purposes or the possession of defensive systems based on the use of space weapons. Furthermore, in regard to the reference to article 51 of the Charter, they reiterated that this article could not be invoked to legitimize the use or threat of use of force in or from outer space. Those delegations also held that norms concerning the non-use of force did not and, by their nature, could not prevent an arms race in outer space, since they did not preclude the development, testing and deployment of space weapons. In this context, they also noted out that the agreed objective was not to regulate an arms race in outer space but rather to prevent it, and that any attempt to justify the introduction of weapons in that environment contradicted that objective.

17. Various delegations, while recognizing the value of the legal restraints imposed by the existing régime, considered that there was a clear need to amplify and strengthen that régime to ensure that outer space would not become an arena for the arms race and would be used exclusively for peaceful purposes. Some delegations stressed that existing agreements did not contain provisions prohibiting the development, testing, production and deployment of space weapons and held that, consequently, there was an urgent need to strengthen, improve and amplify the legal framework relating to outer space and to conclude an agreement or agreements, as appropriate, to prevent an arms race in all its aspects in outer space. With respect to the 1967 Outer Space Treaty, it was stated that some of its basic concepts remain imprecise. It was also noted that under the Treaty the concept of demilitarization only applied to the Moon and other celestial bodies and that, in the case of outer space itself, the Treaty's prohibition covered only the placement in orbit around the earth of any object carrying nuclear weapons or any other kind of weapons of mass destructions, or the stationing of such weapons in outer space, in any other manner. Thus, in their view, the Treaty left considerable room for various military activities in outer space, including the deployment of a wide range of weapons, in particular ASAT weapons as well as BMD weapon-systems adaptable for use in ASAT modes. It was also stressed that rapid ongoing developments in space weapons technology could erode existing space law, perhaps leading ultimately to its redundancy. In this context, they stressed that the existing international instruments, though still of positive significance, can no longer meet today's needs and, consequently, were inadequate for the prevention of an arms race in outer space. The need, therefore, arises to conclude new international agreements.

18. Some delegations stressed that in order to identify the lacunae that might exist in the legal régime governing outer space, it was necessary to reach a clear and common understanding of what that régime did and did not permit. In their opinion, outer space was analogous to other environments beyond national jurisdiction, such as the high seas, where non-aggressive military activities were permitted under the existing legal régime. These delegations were also of the view that the area of terminology required further study to achieve greater precision; for example, the vagueness and imprecision of the term "weaponization" was highlighted. In that connection, they referred to document CD/OS/WP.15 which, in their opinion, could be a basis for future work. These delegations also considered that broader participation in existing multilateral agreements and strict observance of both multilateral and bilateral agreements would strengthen the legal régime applicable to outer space.

19. One delegation, in addition to associating itself fully with the points in the previous paragraph, added that it viewed effective arms control in outer space as an attainable quest and one to which it was committed. It believed that the existing legal régime was adequate to deal with current challenges to arms control in outer space; however, full compliance with relevant agreements in force was essential.

20. However, some delegations noted that the existing treaties do not establish unambiguously that outer space is the common heritage of mankind which should be used exclusively for peaceful purposes.

21. Consideration was given to a number of proposals submitted during 1986 (CD/OS/WP.16 and Add.1) as well as to earlier ones. 2/

22. Some delegations stressed that the main objective of the Conference on Disarmament should be the comprehensive prohibition of the development, testing, production and deployment of space weapons. Until the realization of such a comprehensive goal, to prevent an arms race in all its aspects in outer space efforts should concurrently also be directed towards the adoption of partial measures, such as a ban on ASAT weapons and their components, as well as systems adaptable for use in an ASAT mode that are not prohibited under existing agreements.

23. Delegations of a group of socialist countries stressed the need to block completely all possible channels for the extension of an arms race to outer space on the basis of the proposed draft treaty on the prohibition of the use of force in outer space and from space against Earth. Taking into account the position of other delegations with respect to the comprehensive solution to the problem of preventing an arms race in outer space, they were ready to adopt partial steps, leading towards this final goal. In their view, one of such steps could be a conclusion of international agreement on the immunity of artificial satellites and on the prohibition of development, testing and deployment of new ASAT systems and on the destruction of existing such systems.

2/ References to proposals submitted in previous years may be found in the 1985 report of the Ad Hoc Committee, which is an integral part of the Conference's report to the General Assembly (CD/642).

24. Various delegations considered that efforts in the Ad Hoc Committee should be directed towards the objective of prohibiting the emergence of space weapons and several definitions of space weapons were put forward for consideration by the Committee (CD/OS/WP.13/Rev.1 and CD/OS/WP.14/Rev.1 and Add.1). Some of these delegations placed particular emphasis on the prohibition of "space strike weapons". In the course of the analysis of the proposed definitions, some delegations identified common elements which, in their view, provided a good basis for reaching a mutually acceptable understanding of the term. Other delegations stated that they viewed with concern proposals to define selectively and then seek to ban so-called "space weapons" or "space strike weapons". They further maintained that the latter term lacked technical precision and could not be considered as a useful analytical tool for further deliberations. With reference to that view, some other delegations stated that some preliminary work may be needed to define the weapons to be prohibited by an agreement or agreements to prevent an arms race in all its aspects in outer space, and that the cooperation of all States concerned would be necessary to achieve a degree of technical precision of such definitions which is acceptable to all. Those delegations stressed that a uniform opinion on what constitutes space weapons, the enunciation of their characteristics and of their principal elements would greatly contribute to facilitating the work of the Conference on this subject. They also stressed the need to define with precision the scope of item 5 as a first step to advancing in the process of negotiation on the item.

25. Various delegations focussed attention on the question of the prohibition of anti-satellite weapons. It was suggested by some delegations that pending the conclusion of an agreement thereon, the space Powers should agree on a moratorium on the development, testing and deployment of ASAT weapons. In this connection, some delegations recalled that one State had declared and observed a moratorium on the first launching of anti-satellite weapons into outer space.

26. Other delegations noted that a ban on ASAT weapons raised a number of very complex and difficult questions, inter alia, the definition of anti-satellite weapons, the problem of dual purpose space objects, the problems inherent in the fact that ABM and ASAT technologies and capabilities shared common elements and verification difficulties.

27. Some delegations, while noting that in the prevailing international environment it may not be possible to circumvent the difficulties that exist in the way of comprehensive multilateral agreement or agreements to prevent an

arms race in outer space that is threatened by ASAT weapons and the development of BMD systems, proposed that all technologically advanced States, capable of using outer space, could adopt an international instrument to supplement the 1972 ABM Treaty, as an interim confidence-building measure, pending the conclusion of more comprehensive arrangements (CD/OS/WP.12).

28. Various delegations suggested the possibility of multilateralizing the provisions of existing bilateral agreements relating to the immunity of satellites. Some delegations provided detailed views to the effect that the wide range of new technologies that have an inherent anti-satellite potential make it exceedingly difficult to solve the problem of an adequate protection of manned and unmanned space objects by the prohibition of a specific weapons category. Therefore, a much broader approach was needed centered around a possible legal régime for the protection of satellites supplemented by confidence-building measures in the form of a "rules of the road" agreement.

29. One delegation proposed examination of each of the various ways to render a satellite inoperative and prescriptions of suitable measures to protect satellites from non-destructive interference with their functioning, on the one hand, and from dedicated ASAT weapons on the other. That delegation stated that the major military powers should manifest the basic political will to drop the ASAT-option from their global strategy and, to that end, enable the Conference on Disarmament to work for agreements banning further testing and deployment of ASAT weapons as well as dismantling of existing systems.

30. The proposal was made by one delegation that active discussion be entered into on measures to protect from attack all satellites - and their associated ground stations - that contribute to strategic stability and to verification of arms control arrangements. Reference was also made to this proposal by other delegations.

31. Some delegations were of the view that international peace and security could not be allowed to depend on such concepts as strategic stability for they lay at the heart of the action/reaction process that perpetuated the nuclear arms race and with it the danger of the annihilation of mankind.

32. Another idea put forward was that the General Assembly should address the question of developing a régime for the protection of satellites for peaceful purposes in the appropriate forum.

33. Some delegations emphasized that all aspects of the arms race in outer space should be dealt with in order to achieve a comprehensive régime to prevent an arms race in outer space. In their view, the principles of demilitarization should be extended to encompass outer space as a whole.

34. Some delegations stressed the fundamental importance and complexity of verification in relation to possible additional measures relating to the prevention of an arms race in outer space. They stated that verification was a basic issue, particularly as the vital national security interests of States were involved. They were of the view that in this context there were particular problems caused by the vastness of space, the possibility of concealment of certain systems on earth, and the limitations of existing technology. Verification methods must be tailor-made to suit the circumstances of individual agreements. In their view, the issue of verification required deeper study. Other delegations, while recognizing the importance of verification, stated that it did not pose insurmountable difficulties. They further maintained that the subject should not be dealt with in the abstract but, in line with paragraph 31 of the Final Document of the first special session devoted to disarmament, should be examined in the context of negotiations on specific agreements. Some delegations stated that verification of compliance could be provided by national technical means and international verification procedures, including the opening of laboratories for inspection. In their view, a proposed world space organization could also be entrusted with the verification of future agreements to prevent an arms race in outer space. A number of delegations considered that verification functions should be entrusted to an international agency so as to provide the international community with an independent capability to verify compliance with space-related disarmament agreements. In this connection, some delegations referred to the proposal for the establishment of an international satellite monitoring agency.

35. Some delegations believed that consideration should be given to ways and means of strengthening and devising new confidence-building measures. They considered that strengthening the 1975 Registration Convention was desirable, and that provisions of other conventions designed to allow an exchange of information could be implemented more fully. Some delegations also mentioned as worthy of consideration the elaboration of a "rules-of-the-road" agreement and the establishment of a system of space-signalling on the model of practice at sea.

36. Some delegations stated that they would continue to consider measures relating to the prevention of an arms race in outer space that met the following criteria: verifiability, equitability and compatability with national security interests. In their view, at present the proposals for immediate negotiations that had been put forward in the Committee did not satisfy these criteria.

37. One delegation seriously questioned such a position whereby serious proposals made by various delegations were dismissed without even receiving proper consideration. That delegation particularly regretted the advancing of arbitrary general criteria even for consideration of specific proposals.

38. Some delegations emphasized that the space Powers must demonstrate the necessary political will, not only to avoid an arms race in outer space, but also to recognize that the pursuit of their perceived interests in this sphere cannot take precedence over the interests of the international community. They believed that questions relating to the prevention of an arms race in outer space should be considered from a perspective that fully reflected the concerns and interest of all nations.

39. Some delegations considered that, in view of the advanced technology involved in the exploration and use of outer space, and the fact that only a few States were in a position to benefit therefrom, it was necessary in the consideration of proposals to contemplate ways and means of strengthening international cooperation in the peaceful uses of outer space, so that all States would have access without discrimination to space technology to promote their economic and social development according to their needs, interests and priorities. In this context, attention was drawn to the proposal for a stage-by-stage programme of common practical actions for the peaceful exploitation of outer space.

40. Various delegations drew attention to different proposals for the establishment of an international space agency, such as a world space organization, to promote the exploration and use of outer space for peaceful purposes as well as to verify disarmament agreements.

41. A number of delegations considered that greater technical knowledge of issues relating to the prevention of an arms race in outer space would permit the Committee to work more effectively, for which purpose, data provided must be credible and transparent. Some delegations reiterated their support for the establishment of a group of experts, if necessary, outside the framework of the Ad Hoc Committee to provide expertise and guidance in preventing the weaponization of outer space. Other delegations also considered that the work of the Committee would benefit from information provided by the major space Powers on their activities in outer space, as well as on the on-going bilateral negotiations.

42. The importance of the bilateral negotiations was generally acknowledged. Many also stressed the need for a multilateral approach to issues relating to the prevention of an arms race in outer space. Some delegations stressed that

work at the multilateral level should be constructive in terms of, and complementary to, progress in the bilateral negotiations. Other delegations emphasized that the vital interests of all nations were at stake in the prevention of an arms race in outer space. Consequently, they believed that, without detracting from the bilateral process, multilateral negotiations were indispensable and that the Conference on Disarmament, as the single multilateral disarmament negotiating forum, had the primary role in the negotiation of a multilateral agreement or agreements, as appropriate, for the prevention of an arms race in outer space in all its aspects.

43. In the opinion of various delegations, deliberations in the Ad Hoc Committee revealed that the existing legal régime was not sufficient to guard against the danger of the extension of the arms race into outer space and that, consequently, additional measures were needed. In their view, the scope of existing legal instruments should be self-evident. If, however, doubts about their interpretation was being raised they could be resolved only in the process of fresh negotiations. Some delegations noted that there were common elements in the proposals put forward, particularly as regards the ban of ASAT weapons and the definition of space weapons, which would facilitate the task of arriving at an agreement or agreements, as appropriate, to prevent an arms race in outer space. Other delegations were of the view that it was necessary to continue the examination of issues relevant to the prevention of an arms race in outer space that had not been sufficiently identified. They believed that only through a general consensus on such issues would it be possible to place further options in a viable framework. They considered that some of the proposals put forward were most pertinent, but believed that they required further detailed elaboration in their technical structure, as well as in parallel obligations, such as compliance and verification.

44. Many delegations underlined that the task entrusted to the Ad Hoc Committee for 1986 had been completed. They, however, regretted the inability of the Committee this year to systematically identify the specific measures necessary to prevent an arms race in outer space while research and development of space weapons continued apace. They, therefore, considered that at the next session of the Conference, the Committee should begin negotiations with a view to the conclusion of an agreement or agreements, as appropriate, to prevent an arms race in outer space, as specifically stated in resolution 40/87 adopted by an overwhelming majority in the General Assembly. Other delegations stressed the adequacy of the 1986 mandate to continue substantive work on this item. In their view, it was relevant and realistic and permitted a considerable amount of concrete work.

IV. Conclusion

45. The Ad Hoc Committee, bearing in mind the task entrusted to it of examining and identifying issues relevant to the prevention of an arms race in outer space, held a wide-ranging exchange of views which contributed to identifying and clarifying a number of issues and to a better understanding of the various positions. It was recognized that the legal régime applicable to outer space played a significant role in the prevention of an arms race in that environment and the need to reinforce that régime was underlined. In addition, the importance of strict compliance with existing agreements, both bilateral and multilateral, was stressed. There was also recognition of the common interest of mankind in the exploration and use of outer space for peaceful purposes. In this context, the importance of paragraph 80 of the Final Document of the first special session devoted to disarmament, which states that "in order to prevent an arms race in outer space, further measures should be taken and appropriate international negotiations held in accordance with the spirit of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies", was recognized.

46. There was general recognition of the importance and urgency of preventing an arms race in outer space and readiness to contribute to that objective. Consequently, it was agreed that no effort should be spared to assure that substantive work on this agenda item will continue at the next session of the Conference. It was recommended that the Conference on Disarmament re-establish the Ad Hoc Committee on the Prevention of an Arms Race in Outer Space with an adequate mandate at the beginning of the 1987 session.

CONFERENCE ON DISARMAMENT

CD/739
12 February 1987

Original: ENGLISH

LETTER DATED 10 FEBRUARY 1987 FROM THE PERMANENT REPRESENTATIVES OF ARGENTINA, INDIA, MEXICO AND SWEDEN ADDRESSED TO THE PRESIDENT OF THE CONFERENCE ON DISARMAMENT TRANSMITTING A JOINT STATEMENT URGING THE LEADERS OF THE SOVIET UNION AND THE UNITED STATES TO RECOMMENCE COMPREHENSIVE TALKS AS SOON AS POSSIBLE TO PREVENT AN ARMS RACE IN SPACE AND TERMINATE IT ON EARTH AND ULTIMATELY TO ELIMINATE NUCLEAR ARMS EVERYWHERE

As we are sure you are aware, the five Heads of State or Government of Argentina, Greece, India, Mexico and Sweden and the First President of Tanzania issued a Joint Statement at the end of December 1986 in which, after calling attention once again to the threat of nuclear war which would affect all the inhabitants of our planet, they urged the leaders of the Soviet Union and the United States to recommence comprehensive talks, as soon as possible, to fulfil their stated objective: to prevent an arms race in space and terminate it on earth and ultimately to eliminate nuclear arms everywhere.

We would appreciate that the text of this Joint Statement be reproduced and distributed as a document of the Conference on Disarmament.

(Signed) Mario Cámpora
Ambassador
Permanent Representative of
Argentina for Disarmament
Affairs

(Signed) J. Singh Teja
Ambassador
Permanent Representative of India
to the United Nations Office
at Geneva

(Signed) Alfonso Garciá Robles
Ambassador
Permanent Representative of
Mexico to the Conference on
Disarmament

(Signed) Rolf Ekéus
Ambassador
Permanent Representative of
Sweden to the Conference on
Disarmament

GE.87-60181/5751e

ANNEX

JOINT STATEMENT OF THE SIX

1. On the eve of the new year, we wish to call attention once again to the threat of nuclear war which would affect all the inhabitants of our planet. But we also wish to underline the opportunities which 1987 provides for agreements which can strengthen our common security.

2. At Reykjavik, President Reagan and General Secretary Gorbachev came very close to reaching agreements which would have been historic in their sweep and significance. These could have paved the way for the complete elimination of all nuclear weapons. There was widespread disappointment that, although both leaders went far in initiatives and responses, these agreements foundered on differences over the space systems issue.

3. However, the Reykjavic meeting demonstrated that it is possible, given political vision and commitment, to go beyond old doctrines and to break new ground in nuclear arms control and disarmament. it is heartening that the proposals from Reykjavik are still on the table and have not been withdrawn. 1987 therefore provides an opportunity for the Soviet Union and the United States to agree on a number of important disarmament measures, including deep cuts in nuclear arsenals. We urge the leaders of these two nations to take advantage of that opportunity and to build on the understanding of Reykjavik, without any weakening of the commitments made there. As long as agreement is not reached, the nuclear arms race will ineluctably continue to escalate and the survival of all of us will become more and more precarious.

4. For these reasons, over the last two years, in Delhi, in Ixtapa and on other occasions, we have called for an immediate halt to nuclear testing, cessation in the production and development of all nuclear weapons, and the prevention of an arms race in outer space. These priorities not only remain valid, but have assumed greater urgency in the light of recent developments. In this context, the problem of a balanced reduction in conventional forces in Europe must also be given appropriate attention.

5. In Ixtapa, we drew attention to the unfortunate and dangerous trend of erosion of existing treaties to suit the convenience of nations. We reiterate at this critical juncture that treaties, especially those relating to disarmament and arms limitation, should be honoured both in letter and spirit. We urge in particular the Government of the United States to reconsider its decision to exceed the SALT II ceilings.

6. We have noted the recently announced decision of the Soviet Union to terminate its unilateral moratorium and to resume nuclear testing following the first United States test in 1987. We regret this decision, which we hope is not irreversible. At the same time we recognize that there is still room for a bilateral moratorium. There is no justification for nuclear testing by any country. We appeal once again to the United States to reconsider its policy on nuclear testing so that a bilateral moratorium can be established. Our offer to help ensure adequate verification of such a moratorium remains valid. We are ready to start implementing it at any moment.

7. We have stressed that the development of space weapons would trigger off a new arms race of unprecedented scope and increase the danger of a nuclear war. Negotiations should focus on the elimination of nuclear weapons, rather than on programmes based on the assumption that nuclear weapons will threaten us all indefinitely.

8. In these closing days of 1986, we urge the leaders of the Soviet Union and the United States to recommence comprehensive talks, as soon as possible in the new year, to fulfil their stated objective - to prevent an arms race in space and terminate it on earth and ultimately to eliminate nuclear arms everywhere. The entire international community expects them to live up to their obligations.

Raúl Alfonsín
President of Argentina

Miguel de la Madrid Hurtado
President of Mexico

Andreas Papandreou
Prime Minister of Greece

Ingvar Carlsson
Prime Minister of Sweden

Rajiv Gandhi
Prime Minister of India

Julius Nyerere
First President of Tanzania

CONFERENCE ON DISARMAMENT

CD/773 1/
20 July 1987

Original: ENGLISH

CANADA

SUMMARY REPORT OF THE OUTER SPACE WORKSHOP HELD
IN MONTREAL ON 14-17 MAY 1987

As part of its contribution to the work of the Conference on Disarmament, Canada invited heads of the CD and observer delegations to attend an Outer Space Workshop in Montreal on 14-17 May 1987

The purpose of the Workshop was to provide an opportunity for an exchange of views on broad legal questions relevant to the prevention of an arms race in outer space, focusing in particular on the current legal régime relevant to outer space. The Workshop also provided an opportunity to introduce to the members of the CD, the results of Canadian research concerning the use of space-based remote sensing techniques for verification of arms control and disarmament agreements.

Attached as an annex to this document is a report that provides a summary of the issues and viewpoints which emerged during discussions at the various segments of the Workshop.

1/ A limited distribution of this report in English only has been made to the members of the Conference on Disarmament. Additional copies are available from the Permanent Mission of Canada at Geneva.

CONFERENCE ON DISARMAMENT

CD/777
31 July 1987

Original: ENGLISH

GERMAN DEMOCRATIC REPUBLIC AND THE MONGOLIAN PEOPLE'S REPUBLIC

Main Provisions of a Treaty on the Prohibition of Anti-Satellite Weapons and on Ways to Ensure the Immunity of Space Objects

The prohibition of anti-satellite weapons and the destruction of anti-satellite systems that may already exist will help ban all types of weapons and achieve general and complete disarmament under strict and effective international control.

Such a treaty should be based on the obligation under the Charter of the United Nations to refrain from the threat or use of force in any manner inconsistent with the purposes of the United Nations, and on the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies.

A. Scope

1. The States Parties to this Treaty shall undertake not to resort to the use or threat of force against any space object orbiting the earth or deployed on the moon or on other celestial bodies or in outer space in any other manner

2. The States Parties to this Treaty shall undertake not to deliberately destroy, damage or interfere with the normal functioning of any space object owned by other States or change its trajectory.

3. In accordance with articles 1 and 2, the States Parties to this Treaty shall agree:

(a) not to develop, test or deploy in outer space, the atmosphere, on earth or in any other place anti-satellite systems designed to destroy, damage or interfere with the normal functioning of any space object;

(b) to destroy under international control any anti-satellite system already in their possession;

(c) not to utilize any space object orbiting the earth or deployed on celestial bodies or in outer space to destroy, damage or interfere with the normal functioning of any space object owned by other States or change its trajectory;

(d) not to modify space objects or other devices for anti-satellite weapons purposes;

(e) not to test or use manned spacecraft for anti-satellite weapons purposes.

4. Each State Party shall undertake not to assist, encourage or induce any State or group of States or international organizations to engage in activities prohibited under this Treaty. Each State Party shall bear international responsibility for ensuring that all national space activities, whether conducted by governmental agencies or by non-governmental entities, are carried out in conformity with the provisions set forth in this Treaty.

B. Compliance with the Treaty

I. National Technical Means of Verification

1. For the purpose of monitoring compliance with the provisions of this Treaty, each State Party shall use the national technical means of verification at its disposal in a manner consistent with generally recognized principles of international law.

2. Each State Party shall undertake not to interfere with the normal functioning of the national technical means of verification of other States.

3. Each State Party shall undertake not to use deliberate concealment measures to impede verification of compliance by national technical means.

4. The States Parties in possession of national technical means of verification shall make available to the appropriate organ established under this Treaty or, if necessary, to other States Parties any information obtained through those means and relevant to the purposes of the Treaty.

II. Consultations, Consultative Committee and International Inspectorate

1. A Consultative Committee, comprised of all States Parties to the Treaty, shall be established. The Committee shall deal with all issues pertaining to the implementation of the Treaty, encourage international consultation and co-operation among States Parties and carry out verification measures, including international on-site inspections. (The relationship between the Consultative Committee and a possible universal space organization might have to be defined as well.)

2. The Committee shall decide to establish the subsidiary organs it deems necessary, including an International Inspectorate.

3. The States Parties to this Treaty shall consult and co-operate directly among themselves or through the Consultative Committee or other appropriate international channels on any matter that may be raised in relation to the objectives or the implementation of the Treaty.

4. The States Parties to this Treaty shall make every effort to clarify and resolve, through information exchanges and consultations, any issue which may cause doubt about compliance with the Treaty or give rise to concerns about any related matter of an ambiguous nature.

5. The States Parties to the Treaty shall exchange information on the launch parameters and the general function of space objects.

III. On-Site Challenge Inspection

1. Each State Party shall have the right at any time to request that an ad hoc on-site inspection be sent to any other State Party if the requesting State considers that, in the exceptional circumstances of the case, such a measure is necessary in order to clarify and resolve a situation which gives rise to doubts about the other State's compliance with its obligations under article 3 of this Treaty.

2. In the event of such a request, each State Party shall be obliged to provide satisfaction, as early as possible but not later than 10 days after the receipt of such a request, to the requesting State Party that it has been and is at the present time in full compliance with its obligations under this Treaty. This shall comprise arrangements for access by international inspectors and, in the exceptional case that access to the location in question would jeopardize national security interests, satisfactory alternative arrangements.

C. Negotiations to Prevent an Arms Race in Outer Space

Each State Party to the Treaty shall affirm as a recognized objective the prevention of an arms race in outer space and, to this end, undertake to continue negotiations in good faith with a view to reaching early agreement on effective measures to prevent an arms race in outer space.

D. Exploration and Peaceful Use of Outer Space

1. The States Parties to the Treaty shall undertake to facilitate, and have the right to participate in, the fullest possible exploration and peaceful use of outer space, including the moon and other celestial bodies, for the benefit and in the interests of all countries, irrespective of their degree of economic or scientific development.

2. The implementation of this Treaty shall not hamper the exploration and use of outer space, including the moon and other celestial bodies, for peaceful purposes.

E. Concluding Provisions

This Treaty shall be of unlimited duration. The signatories to the Treaty shall work out the provisions governing the entry into force, accession to, and withdrawal from, the Treaty.

CONFERENCE ON DISARMAMENT

CD/786
24 August 1987

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REPORT OF THE AD HOC COMMITTEE ON PREVENTION OF AN ARMS RACE IN OUTER SPACE

I. INTRODUCTION

1. At its 392nd plenary meeting on 24 February 1987, the Conference on Disarmament adopted the following decision:

> "In the exercise of its reponsibilities as the multilateral disarmament negotiating forum in accordance with paragraph 120 of the Final Document of the first special session of the General Assembly devoted to disarmament, the Conference on Disarmament decides to re-establish an Ad Hoc Committee under Item 5 of its agenda entitled 'Prevention of an arms race in outer space'.
>
> The Conference requests the Ad Hoc Committee, in discharging that responsibility, to continue to examine, and to identify, through substantive and general consideration, issues relevant to the prevention of an arms race in outer space.
>
> The Ad Hoc Committee in carrying out this work, will take into account all existing agreements, existing proposals and future initiatives as well as developments which have taken place since the establishment of the Ad Hoc Committee, in 1985, and report on the progress of its work to the Conference on Disarmament before the end of its 1987 session."

In that connection, the President of the Conference made the following statement:

> "I have conducted informal consultations with members from different groups, and in putting this Working Paper CD/WP.268 before the Conference for decision, I wish to state that, as is known to all members of the Conference and as reflected in the 1986 report of the Conference to the General Assembly of the United Nations (CD/732), consideration of proposals for measures aimed at the prevention of an arms race in outer space is covered by the mandate contained in Working Paper CD/WP.268."

II. ORGANIZATION OF WORK AND DOCUMENTS

2. At its 394th plenary meeting on 5 March 1987, the Conference on Disarmament appointed Ambassador Aldo Pugliese (Italy) as Chairman of the Ad Hoc Committee. Miss Aida Luisa Levin, Senior Political Affairs Officer, United Nations Department of Disarmament Affairs, continued to serve as the Committee's Secretary.

3. The Ad Hoc Committee held 18 meetings between 13 March and 24 August 1987.

4. At their request, the Conference on Disarmament decided to invite the representatives of the following States not members of the Conference to participate in the meetings of the Ad Hoc Committee: Austria, Denmark, Finland, Greece, New Zealand, Norway, Portugal, Spain, Turkey and Zimbabwe.

5. In addition to the documents of the previous sessions 1/, the Ad Hoc Committee had before it the following documents relating to the agenda item submitted to the Conference on Disarmament during the 1987 session:

CD/741 Mandate for an Ad Hoc Committee under item 5 of the agenda of the Conference on Disarmament entitled "Prevention of an Arms Race in Outer Space",

CD/758 Letter dated 16 June 1987 from the Permanent Representatives of Argentina, India, Mexico and Sweden addressed to the President of the Conference on Disarmament, transmitting the text of a joint statement made by the five Heads of State or Government of Argentina, Greece, India, Mexico, Sweden and the First President of Tanzania on 22 May 1987,

CD/773 Summary Report of the Outer Space Workshop held in Montreal on 14-17 May 1987, submitted by Canada,

CD/777 Main Provisions of a Treaty on the Prohibition of Anti-Satellite Weapons and on Ways to Ensure the Immunity of Space Objects, submitted by the German Democratic Republic and the Mongolian People's Republic.

In addition, the Committee had before it the following working papers:

CD/OS/WP.17 Programme of work,

CD/OS/WP.18 Proposal for a Structured Discussion of Item 3 of the Programme of Work: "Existing Proposals and future initiatives on the prevention of an arms race in outer space", submitted by the German Democratic Republic.

III. SUBSTANTIVE WORK DURING THE 1987 SESSION

6. Following an initial exchange of views and consultations held by the Chairman with Members of different groups, the Ad Hoc Committee, at its 2nd meeting on 7 April 1987, adopted the following programme of work for the 1987 session:

"1. Examination and identification of issues relevant to the prevention of an arms race in outer space;

2. Existing agreements relevant to the prevention of an arms race in outer space;

1/ The list of documents of the previous sessions may be found in the 1985 and 1986 reports of the Ad Hoc Committee, which are an integral part of the reports of the Conference on Disarmament (CD/642 and CD/732, respectively).

3. Existing proposals and future initiatives on the prevention of an arms race in outer space.

In carrying out its work, the Ad Hoc Committee will take into account developments which have taken place since the establishment of the Committee in 1985."

In that connection, the Chairman made the following statement:

"... I wish to recall that in carrying out this programme of work consideration will be given to the declaration made by the President of the Conference on Disarmament for the month of February, on the occasion of the adoption of the mandate ... with the understanding that the programme of work covers the consideration of proposals for measures aimed at the prevention of an arms race in outer space."

7. The Ad Hoc Committee agreed that in discharging the tasks set forth in its mandate, it would give equal treatment to the subjects covered therein. Accordingly, the Committee further agreed to allocate the same number of meetings to each of those subjects, namely, issues relevant to the prevention of an arms race in outer space, existing agreements and existing proposals and future initiatives. At the last substantive meeting, some delegations took the opportunity to sum up their positions.

A. Examination and identification of issues relevant to the prevention of an arms race in outer space

8. Many delegations, reiterating that outer space is the common heritage of mankind and should be reserved exclusively for peaceful uses to promote the scientific, economic and social development of all nations, stressed the overriding importance and urgency of preventing an arms race in outer space. They recalled that the exploration and use of outer space should be carried out in the interest of maintaining international peace and security and promoting international co-operation and mutual understanding. They stated that military competition between the two major powers was being extended into outer space, leading to the development, testing and possible deployment of weapons systems and their components adaptable for use in or from space. In their view, the introduction of weapons into space would result in an irreversible competition in the field of space weaponry which would have dangerous consequences for international peace and security, give the arms race a qualitatively new dimension, undermine existing agreements and jeopardize the disarmament process as a whole. It would also, in their opinion, create obstacles to the peaceful uses of outer space to promote scientific, economic and social development. They, therefore, believed that the priority task of the Ad Hoc Committee should be the immediate prohibition of the testing, production and deployment of weapons systems and their components adaptable for use in, towards, or from space. To that end, in their opinion, attention should focus on the question of the measures that should be adopted. In that connection, they noted the significance of the statement made by the President of the Conference at the time of the re-establishment of the Committee. These delegations also pointed to the military uses of space that were already taking place as an extension of weapons systems on Earth. In that connection, it was noted that information gathered by reconnaissance and surveillance satellites had been used in support of military operations against developing countries. The view was expressed that to guard against such uses, satellite reconnaissance and

surveillance activities should be entrusted to an international agency. The view was also expressed that, in the interim, space powers should give assurances to non-aligned and neutral States against the discriminatory and inequitable use of satellites.

9. Delegations of a group of socialist countries continued to believe that outer space is the common heritage of mankind and that, consequently, its exploration and use should be preserved exclusively for peaceful purposes in order to promote the sciientific, economic and social development of all countries. They stressed the overriding importance and urgency of preventing an arms race in outer space. They once again pointed, however, to the impending danger of the extension of the arms race to outer space which would, in their view, step up the arms race in other areas and make reductions in nuclear strategic arsenals impossible. In this respect, these delegations expressed serious concern at the continuing implementation of the SDI programme, which had, reportedly, entered a stage of planning to carry out specific tests and deploy some components of a BMD system, both on Earth and in outer space. These delegations were of the view that the stage of exploring the problem of preventing an arms race in outer space had been passed and that the Ad Hoc Committee should proceed to more practical and concrete work. In that connection, they welcomed the statement by the President of the Conference at the time of the Committee's re-establishment. They believed that the most important aspect of the problem of preventing an arms race in outer space in the present circumstances was preventing the introduction of weapons in space through the probibition of space-strike weapons. Their understanding of the term was that it included: first, space-based ABM systems of any principle of action, second, space-based systems of any principle of action designed to strike from space targets in the atmosphere or on the surface of the Earth and, third, systems of any principle of action and however based to strike space objects. Accordingly, they pointed to the wide-ranging character of the concept of space-strike-weapons, which, as seen from the proposals for respective definitions advanced by delegations of socialist and non-aligned States (CD/OS/WP.13/Rev.1 and CD/OS/WP.14/Rev.1 and Add.1), covered all possible threats to destroy, damage or interfere with the normal functioning of objects in space. They considered that the prohibtion of such weapons would be an effective and secure way to prevent all possibilities for the introduction of weapons in outer space. In this connection they recalled that one State had declared and observed a moratorium on the first launching of anti-satellite weapons into outer space. These delegations noted that, although satellites were being used in a variety of support missions and were playing an important role in the strategic relationship, there had been no weapons permanently deployed in outer space up to the present time. They also observed that ballistic missiles having their launching sites and targets situated on Earth, were not space strike weapons either. They underlined the importance of assuring that the non-deployment of weapons in space would be effectively verified and to that end supported the establishment of an international inspectorate, as discussed below in paragraph 45.

10. Some delegations, while attaching utmost importance to the objective of preventing an arms race in outer space, stated that for 30 years space had appeared as an appropriate environment for national security activities like the Earth and the atmosphere. They stressed that the issue of the role of the military uses of space in the maintenance of international peace and security had to be considered thoroughly. They noted that military systems deployed in

space accomplished a variety of support missions and that they played a vital role in the strategic relationship of the two major Powers, and they rejected the concept of "space strike weapons" for being part of a selective approach which did not give an accurate picture of the threats against space objects and of the military and strategic situation relevant to outer space. They criticized attempts to define categories of "space strike weapons" which were at the same time too broad, because they placed in the same category systems with different functions and implications, and too narrow because they excluded weapons and other means which have the capability to disrupt the normal functioning of space objects. They further noted that outer space was not immune from utilization by existing weapons systems such as ballistic missiles. They considered that, while the Ad Hoc Committee had had very substantial discussions, fundamental divergences persisted and the work was still in an exploratory phase. In their view, the prevention of an arms race in outer space was linked to and should take into account progress in other fields of arms limitation and disarmament, in particular the reduction of nuclear weapons. These delegations continued to underline the importance of issues relating to verification of and compliance with existing and future agreements and held that those issues required a more thorough examination. They also stressed the need for detailed information on national space programmes that have military implications.

11. One delegation considered that the two major space Powers, which were the only ones that at present possessed and were developing space weapons, should assume a special responsibility for halting the arms race in outer space. In its view, they should adopt practical measures by undertaking not to develop, test and deploy space weapons and, on that basis, an international agreement should be concluded through negotiations on the complete prohibition of space weapons. It believed that work in the Conference on Disarmament should centre on the study and solution of the issues that were most directly related to preventing the "weaponization" of outer space.

12. There was general recognition of the importance of the bilateral negotiations between the Union of Soviet Socialist Republics and the United States of America. Some delegations, while stressing that there was clear need for the Conference on Disarmament to play a role with respect to problems relating to the prevention of an arms race in outer space, held that nothing should be done that would hinder the success of the bilateral negotiations. Furthermore, they believed that multilateral disarmament measures in this area could not be considered independently of developments at the bilateral level. Other delegations, emphasized that ongoing bilateral negotiations in no way diminished the urgency of multilateral negotiations and reaffirmed that, as provided for in General Assembly resolution 41/53, the Conference on Disarmament, as the single multilateral disarmament negotiating forum, had the primary role in the negotiation of a multilateral agreement or agreements, as appropriate, on the prevention of an arms race in outer space in all its aspects.

13. Some delegations drew attention to a number of issues which, in their view, had been identified in the course of the work carried out in the previous years. Among them, the following were mentioned: that outer space is the common heritage of mankind and should be used exclusively for peaceful purposes, that an arms race in outer space should be prevented, that as yet no weapons have been deployed in space and that agreements that may be concluded

in this field should contain effective provisions for verification. Other delegations stressed the importance of issues such as the identification of the threats to which space objects are confronted, the relationship between the prevention of an arms race in outer space and other areas of disarmament and the problem of verification.

B. Existing agreements relevant to the prevention of an arms race in outer space

14. There was general recognition that, as provided for in the 1967 Outer Space Treaty, activities in the exploration and use of outer space should be carried out in accordance with international law, including the Charter of the United Nations.

15. Some delegations underlined the central role that the Charter of the United Nations plays in the legal régime applicable to outer space. In that connection, they stressed the special significance of the Charter provisions on the non-use of force -- Articles 2(4) and 51 -- which, taken together, prohibit any act of aggression in outer space. Accordingly, they believed that these provisions afforded a substantial degree of protection to space objects. Other delegations reaffirmed the importance of the United Nations Charter, but, at the same time, reiterated that its provisions concerning the non-use of force could not, in and of themselves, be sufficient to preclude an arms race in outer space -- just as they had not done so on Earth -- since they did not address the question of the development, testing, production and deployment of weapons in space. For example, these delegations recalled that the legal provisions of these articles had not prevented the arms race on Earth, nor did they diminish the universally recognized need to negotiate disarmament agreements and even to ban specific types or whole classes of weapons, such as biological, nuclear, chemical, radiological weapons. In their view Article 51 of the Charter could not be interpreted as justifying the use of space weapons for any purposes or the possession of any type of arms based on the use of space weapons. They also stressed that Article 51 could not be invoked to legitimize the use or threat of use of force in or from outer space. In this context, they noted that the objective agreed upon by consensus, both at multilateral and bilateral levels, was not to regulate an arms race in outer space but to prevent it, and that any attempt to justify the introduction of weapons in that environment contradicted that objective. Accordingly, these delegations believed that in the context of the work of the Ad Hoc Committee the value of statements on the existing degree of protection to space objects should be assessed against their relevance to the achievement of the common objective to prevent an arms race in outer space.

16. Delegations examined various multilateral and bilateral instruments, inter alia, the Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Under Water (1963), the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (1967), the Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space (1968), the Agreement on Measures to Reduce the Risk of Outbreak of Nuclear War Between the United States of America and the Union of Soviet Socialist Republics (1971), the Convention on International Liability for Damage Caused by Space Objects (1972), the Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Limitation of

Anti-Ballistic Missile Systems (1972), the Agreement Between the United States of America and the Union of Soviet Socialist Republics on the Prevention of Nuclear War (1973), the Convention on Registration of Objects Launched into Outer Space (1975), the Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques (1977) and the Agreement Governing the Activities of States on the Moon and other Celestial Bodies (1979). In the examination of existing agreements, some delegations referred to documents CD/OS/WP.6 and 7.

17. It was noted that under the multilateral agreements in force: (1) it is prohibited to place in orbit around the Earth any objects carrying nuclear weapons or any other weapons of mass destruction and to install such weapons on celestial bodies or station them in outer space in any other manner; (2) the Moon and other celestial bodies are to be used exclusively for peaceful purposes and the establishment of military bases, installations and fortifications, the testing of any type of weapons and the conducting of military manoeuvres on celestial bodies are forbidden; (3) the testing of nuclear weapons or any other nuclear explosions in outer space is prohibited.

18. Various delegations, while acknowledging the value of the restraints imposed by the existing legal régime, which placed some barriers to the arms race in outer space through limitations on certain weapons and military activities in that environment, reiterated that in some areas there were loopholes. They noted that the 1967 Outer Space Treaty, because of its limited scope, left open the possibility of the introduction of weapons in space, other than nuclear weapons or other weapons of mass destruction, in particular anti-satellite weapons and space-based anti-ballistic missile systems. Furthermore, in their opinion, current developments in space science and technology, coupled with ongoing military space programmes, underscored the inadequacy of existing legal instruments to prevent an arms race in outer space. They, therefore, held that there was an urgent need to supplement and amplify the existing legal régime and that, consequently, it was urgent to strengthen, improve and broaden the legal régime applicable to outer space with a view to the effective prevention of an arms race in outer space in all its aspects. Some other delegations stressed that as long as the analysis of the existing legal prescriptions remained restricted to the continuously repeating and deploring of deficiencies and lacunae without attempting to agree upon the real need for and adequate approach to the improvement and completion of a comprehensive legal régime, the work of the Committee would remain selective, deliberately incomplete and without substantial reward.

19. One delegation stated that it proceeds from the necessity to preserve the ABM Treaty in its integrity as a document of unlimited duration, forming the necessary basis for agreement on substantial cuts in strategic offensive weapons. Such cuts would be impossible without preserving the Treaty in its integrity. It offered practical measures to strengthen the régime of the ABM Treaty, above all, an agreement between the parties concerned not to use the right to withdraw from the Treaty for at least ten years, while strictly complying with all its provisions. It also noted that the system of the ABM Treaty provisions does not allow to develop, test or deploy a large-scale ABM system with space-based elements. Article I(2) of the ABM Treaty explicitly prohibits the deployment of ABM systems protecting the entire territory of a State party to the Treaty. Article V(1) of the Treaty explicitly prohibits the development, testing or deployment of ABM systems

which are, inter alia, space-based or include space-based elements. Thus, in all respects the SDI programme constitutes a violation of the ABM Treaty. The same delegation emphasized that its State had been observing fully and precisely the ABM Treaty and that no work similar to the work on the SDI programme was being conducted by it. Nor is this State engaged in the development of an ABM system outside the framework of the 1972 Treaty. It carries on basic research in the exploration of outer space. This has been stated on numerous occasions by the political leadership of this State.

20. With regard to those weapons that are ABM systems or their components, one delegation noted that paragraph 1 of Article V of the ABM Treaty prohibits the development, testing, or deployment of space-based ABM systems or their components as defined in Article II of the Treaty. With regard to those weapons that are ABM systems or their components, this delegation stated that the ABM Treaty prohibited their deployment either in earth orbit or in outer space generally, unless there is agreement between the parties to permit such deployment.

21. Delegations of a group of socialist countries stated that stationing weapons in outer space would inevitably lead to growing mutual mistrust and whip up the arms race and make the world still more vulnerable. They resolutely rejected so-called "Star Wars" plans, proposing instead a series of initiatives aimed at establishing wide-ranging co-operation in the peaceful exploration and development of outer space in the interests of all humanity.

22. One delegation noted that from the above commentary, one might conclude that no other country had any programmes comparable to the SDI programme. Such a conclusion would be far from correct in this delegation's view. One other country has also been pursuing since the 1960s research into advanced technologies for strategic defence which were precisely the same types of technologies being researched in the SDI programme. This delegation also noted that its country's strategic defence research efforts would last for some years and that there were no preconceived notions about the options that the research will generate. It was therefore obvious just how preposterous the aforementioned criticisms directed solely against the SDI programme were.

23. Some delegations considered that the examination of existing agreements revealed the continuing need to resolve conflicting interpretations with a view to arriving at a common understanding of what is forbidden and what is permitted under the legal régime applicable to outer space. They noted that basic terms such as "peaceful purposes", "militarization", remain to be defined in a satisfactory and generally acceptable fashion. They stressed that there already exists a considerable body of international law applicable to outer space and that the arms control régime in that environment is much more comprehensive than that on Earth. These delegations also believed that broader participation in existing multilateral agreements and strict observance of both multilateral and bilateral agreements would strengthen the legal régime applicable to outer space. They noted that many elements of the existing outer space legal régime were relatively simple; the more complicated any arms control agreement for outer space is, the more difficult it would be to verify compliance with it. These delegations believed that there was need for in-depth consideration of the question of terminology to arrive at greater precision in the use of terms, and referred to document CD/OS/WP.15 as a good basis for work. In this regard, one delegation

commented that the variety of views which existed on the meaning of a number of terms had introduced a wide area of uncertainty and ambiguity into attempts to establish what were permitted or prohibited uses of space. One of these delegations circulated a two-volume dictionary of terms relating to space science and technology, which was generally welcomed.

24. Other delegations pointed out that complicated agreements to prevent an arms race in outer space could be verifiable at present and that rapid development of technology was helpful in devising increasingly reliable technical means of verification. These delegations also believed that the process of consideration of and negotiation on specific proposals to prevent an arms race in outer space would reveal which terms might need to be clarified or even strictly defined, in order to eliminate any unacceptable degree of uncertainty or ambiguity that might exist in the interpretation of their meaning.

25. One delegation, in addition to sharing the views reflected in paragraph 23, considered that the existing legal régime for arms control in outer space was equitable, balanced and extensive and that it could be said that it had been far more successful in preventing an arms race than any comparable legal régime on Earth. Moreover, the existing régime did not contain gaps and holes; instead, it placed strict legal controls on virtually any possible type of weapon in outer space and has several significant accomplishments to its credit. It further believed that if all nations were to comply fully with all existing agreements there would be no doubt that outer space would be used only for peaceful purposes.

26. Many delegations were of the view that all States, in particular the space Powers, should become parties to the multilateral treaties in force that contain provisions relevant to the prevention of an arms race in outer space, in particular the 1963 Partial Test Ban Treaty and the 1967 Outer Space Treaty.

C. Existing proposals and future intitiatives on the prevention of an arms race in outer space

27. Various delegations noted that in addition to the proposals made during previous sessions of the Ad Hoc Committee, as contained in CD/OS/WP.16 and Add.1, inter alia, the following proposals and views were submitted during the 1987 session:

1. Establishment of an international inspectorate.

2. Ways and means of strengthening the Registration Convention.

3. Prohibition of activities contributing directly or indirectly to an arms race in outer space by amending the 1967 Outer Space Treaty.

4. Declarations on non-deployment of weapons in outer space.

5. A possible approach for a treaty on ASAT weapons.

6. Elaboration of a Code of Conduct.

7. Possible mandates for an expert group.

8. Main provisions of a treaty on the prohibition of ASAT weapons and ways to ensure the immunity of space objects.

28. Some delegations reiterated that the overall objective of the Conference on Disarmament should be the complete prohibition of the development, testing, production and deployment of space weapons. Pending the realization of that comprehensive objective, they considered that efforts should be concurrently directed towards the adoption of partial measures, especially to deal with the most urgent problems such as a ban on anti-satellite weapons.

29. Delegations of a group of socialist countries considered that the Ad Hoc Committee had accumulated a wealth of ideas and proposals and that a good basis had been established for concrete and goal-oriented work. Noting the continuing validity of the proposals for the conclusion of a treaty on the prohibition of the stationing of weapons of any kind in outer space and of a treaty prohibiting the use of force in outer space or from space against the Earth, they expressed readiness to consider partial measures leading to the prevention of the deployment of space weapons. They suggested that the first step could be the elaboration of an international agreement to ensure the immunity of artificial satellites not carrying weapons of any kind. At the same time, in their view, consideration should be given to the possibility of a prohibition on the development of new types of ASAT systems and the elimination of existing ones. They also proposed to discuss the possibility of taking measures aimed at banning space-to-space, space-to-Earth and Earth-to-space weapon systems. Underlining that the non-deployment of weapons in outer space should be effectively verified, they elaborated on the proposals for the creation of a world space organization and for the establishment of an international inspectorate. In order to facilitate the work of the Ad Hoc Committee, a document (CD/777) containing provisions of a treaty on the prohibition of anti-satellite weapons and on ways to ensure the immunity of space objects was submitted to the Conference.

30. Other delegations were not in favour of proposals calling for an immediate ASAT ban, immunity for all satellites, a ban on so-called space weapons and other similar approaches. In their view, these approaches did not take adequately into account objective political, strategic, military and technical factors. Nor were such proposals helpful in fulfilling the Committee's mandate, and in particular in assisting delegations to widen and deepen their understanding of the complex issues relevant to the prevention of an arms race in outer space.

31. Other delegations pointed out that those delegations which rejected proposals on an ASAT ban or on other ways to ban outer space weapons, had advanced no other comparable proposals on their part aimed at achieving the common objective of preventing an arms race in outer space.

32. Various delegations considered that existing proposals for the definition of space weapons (CD/OS/WP.13/Rev.1 and CD/OS/WP.14/Rev.1 and Add.1) shared common elements and thus provided a good basis for further work towards the objective of prohibiting the emergence of space weapons. Other delegations,

were not in favour of this approach since, in their view, it did not give an accurate picture of all the threats confronting space objects and also overlooked other significant factors of the military and strategic situation relevant to outer space.

33. Various delegations discussed proposals concerning the prohibition of anti-satellite weapons and the protection of satellites. It was suggested that one possible structure for an instrument on the subject would be in the form of a general treaty with specific protocols applicable to different categories of satellites. Reference was made to the suggestion that, in order to assure the verifiability of treaty commitments, untested anti-satellite systems could be prohibited, i.e., those capable of attacking satellites in high orbit. Commenting on proposals for the protection of satellites, it was noted that it would first be necessary to establish as clearly as possible within the context of existing international law and established international practice which satellites perform functions that are in the common interest, what these common interests are and how these satellites contribute to them, following which it would be necessary to identify how these satellites could be protected. In this regard it was also recalled that a proposal had been made that active discussion be entered into on measures to protect from attack all satellites -- and their associated ground stations -- that contribute to strategic stability and to verification of arms control arrangements. Another view was that a treaty on the subject should: ban the use of force against any space object; prohibit the deliberate destruction, damage or interference with the normal functioning of space objects; proscribe the development, production or deployment of ASAT weapons; and provide for the destruction under international control of any existing ASAT weapons. Some delegations commented in detail on a wide range of means that were available to interfere with the functioning of satellites which, in their view, demonstrated that in the examination of proposals to prohibit ASAT systems it was clearly necessary to take into account that the concept involved much more than weapons systems specifically designed and intended to destroy satellites.

34. Commenting on proposals for the elaboration of an agreement on the immunity of space objects, some delegations noted that the majority of satellites perform military missions and held that to grant them immunity would be tantamount to legitimizing the military uses of space. In their opinion, any move to grant immunity to space objects should be accompanied by a strengthening of the 1975 Registration Convention to assure that the functions and purposes of protected space objects are clear. It was suggested that the Convention should include provisions to verify the accuracy of the information provided thereunder and that the verification of the nature of space objects could be carried out at the launching sites.

35. With reference to the proposals contained in paragraphs 28, 33 and 34, many delegations recalled that the Harare Declaration adopted at the Eighth Non-aligned Summit called on the Conference on Disarmament to commence negotiations urgently to conclude an agreement or agreements, as appropriate, to prevent the extension of an arms race in all its aspects into outer space and thus enhance the prospects of co-operation in the peaceful uses of outer space. In particular, they stressed the urgency of halting the development of anti-satellite weapons, the dismantling of the existing systems, the prohibition of the introduction of new weapon systems into outer space and of ensuring that the existing treaties safeguarding the peaceful uses of outer

space, as well as the 1972 Treaty on the limitation of Antiballistic Missile Systems are fully honoured, strengthened and extended as necessary in the light of recent technological advances. It further invited the United Nations Secretary-General and the Conference on Disarmament to explore the ways and means of bringing satellites for military purposes under international control, particularly when it puts at stake the security of the non-aligned countries. In this connection, it called upon all States, in particular those with major space capabilities, to adhere strictly to the existing legal restrictions and limitations on space weapons, including those contained in the Outer Space Treaty and the 1972 Soviet Union-United States Treaty on Antiballistic Missiles, and to refrain from taking any measures aimed at developing, testing or deploying weapons and weapon-systems in outer space.

36. Other delegations stressed that proposals, beside the basic criterion of usefulness should be judged in terms of their contribution to international peace and security and of their verifiability and they questioned the credibility and the balance of proposals contained in paragraph 35 linked to selective and partial approaches.

37. Some delegations, while noting that the Ad Hoc Committee was still at an exploratory stage of its work, considered that some ideas that had been put forward deserved study, such as the possibility of multilateralizing the provisions of existing bilateral agreements relating to the immunity of satellites, the role which the international monitoring of satellites might play, the possibility of placing constraints on some elements of anti-satellite activity, consistent with the security interests of all States, and a "rules-of-the-road" agreement for space. Some delegations also stressed the importance of, and made proposals for, confidence-building measures and the need for transparency in space activities. They also mentioned as worthy of consideration the elaboration of a code of conduct.

38. Other delegations held that the Ad Hoc Committee had passed the exploratory stage of its work and had exhausted the consideration of the first two points of its programme of work, it having been clearly established that the central question that the Committee should consider under agenda item 5 was the identification of concrete measures to prevent, in a general and comprehensive manner, an arms race in outer space.

39. Referring to proposals for banning the use of force in outer space, immunizing satellites from attack, immunizing satellite ground stations from attack and banning anti-satellite weapons, one delegation held that such proposals were either redundant or perhaps even prejudicial to the legal controls that were already in place. In its view, all uses of force except in self-defence were currently prohibited by law, all satellites and the ground stations associated with such satellites were already protected from attack except in cases of self-defence, the existing legal régime placed many restraints on the nature, deployment and uses of ASATs, and a comprehensive ASAT ban would raise many complex problems.

40. Various delegations recalled, however, that these legal restraints were not comprehensive enough to prevent the emergence of non-nuclear ASAT weapons in outer space and should, therefore, be supplemented by agreements which would preclude the introduction of such weapons in that environment.

41. A proposal was made that the Members of the Conference on Disarmament should accept to declare, through the Ad Hoc Committee's report, that none of them has deployed weapons in outer space on a permanent basis. While some delegations, including the delegations of socialist countries, supported this proposal, others questioned its usefulness because, in their view, such a declaration was not verifiable and might interfere with the bilateral negotiations.

42. A presentation was made to the Ad Hoc Committee on the results of an ongoing research programme, known as PAXSAT, concerning the feasibility of the application of remote-sensing techniques to the verification of multilateral arms limitation and disarmament agreements and covering both space-to-space and space-to-ground remote-sensing. Delegations, in general, expressed their appreciation for the valuable contribution this project made to work in the area of verification.

43. Some delegations considered that verification did not raise insurmountable obstacles to the conclusion of agreements to prevent an arms race in outer space since, in their view, it should be possible to assure verification of compliance through a combination of national technical means and international procedures. Attention was drawn to the proposals for the creation of a world space organization and the establishment of an international inspectorate. Reference was also made to the possibilities offered by the PAXSAT concept and the proposed international satellite monitoring agency for further exploring the feasibility of multilateral means of verifying a non-arms régime in outer space. A number of delegations were of the view that verification functions should be entrusted to an international body, so as to provide the international community with an independent capability to verify compliance. Some delegations held that issues relating to verification needed to be considered in greater depth. They believed that such issues were particularly sensitive and complex in this area because, on the one hand, vital national security interests were at stake and, on the other hand, the vastness of space and the possibilities of concealment on Earth posed special problems. One such special problem related to proposals for a verification system that did not take into account that an operational ASAT system and an operational ABM system already exist. Another such problem related to the number of direct and indirect ways to attack a satellite and the other elements of a satellite system. A further problem arose from divorcing classes of "space weapons" from the context in which they are developed and might be deployed. Other delegations maintained that monitoring all launches of objects to be stationed in space, through an international inspectorate, would greatly reduce the relevance of such factors, particularly in the absence of any weapons permanently deployed in that environment. They also recalled that the experience being acquired in verifying some far-reaching disarmament measures on Earth, including SALT and other agreements, would help deal also with concealment problems in space disarmament context. More specifically, these delegations pointed out that some proposals to ban ASAT weapons provided also for the elimination of all existing weapons of this class, both the air-launched systems based on F-15 fighters and, the land-based one which was still not operational; these ASAT systems would be destroyed under strict international control, as provided for by the concept of international inspectorate. They recalled that the definitions of ASAT weapons proposed by various delegations covered all possible ways of attacking satellites or the other elements of a satellite

system. These delegations believed that the complex problem of effective verification procedures, acceptable to all, should be seriously addressed in a co-operative manner. Finally, they pointed out that dealing with separate classes of weapons was already an established practice, universally recognized in other disarmament fields. Some delegations expressed the view that the question of the establishment of a world space organization was not within the competence of the Conference on Disarmament.

44. Delegations of the group of socialist countries suggested proceeding, without awaiting the conclusion of the relevant agreement on space, to the establishment of an international verification system -- an international inspectorate -- for the non-deployment on outer space of weapons of any kind. The principal purpose of this verification will be to make sure that objects launched into space are neither weapons, nor are equipped with weapons of any kind. The suggested verification system would envisage the permanent presence of inspection groups at all sites for launching space objects with a view to verifying all such objects irrespective of their means of launching. Information about each upcoming launch, including the location of the site, the type of launch vehicle, general information about the object to be launched and the time of launch would be given in advance to the representatives of the inspectorate. Should an undeclared launch be suspected, the inspectorate would have the right to request the relevant information from the specially-designated observatories and also conduct, if necessary, an on-site inspection. Should the future agreement envisage a complete ban on space strike arms, inspections could be extended to storage facilities, industrial plants, laboratories, testing centres, etc. Launches of ballistic missiles unrelated to putting any space craft into the artificial Earth satellite orbit or on a flight path toward other celestial bodies should not be covered by verification.

45. Some delegations foresaw substantial technical, political and organizational difficulties associated with an international verification inspectorate. In this regard, they believed that one had also to keep in mind that virtually any space object, if controlled and manipulated properly, is capable of serving as a weapon. They stated that this basic fact plus many technical, definitional, organizational and political obstacles bar the way to a successful international verification inspectorate.

46. Other delegations believed, however, that the actual capacity of using such space objects as weapons could become militarily significant only after extensive field testing in such a mode, and that the possibilities offered by an international inspectorate, combined with existing methods of monitoring space objects, would effectively ensure verifiability of an agreement not to introduce weapons in outer space. In this regard, they pointed out that the technical, political and organizational difficulties referred to could be overcome in a co-operative manner, as had been done with respect to many other disarmament agreements.

47. Some delegations, expressing concern at restrictions being placed on the transfer of space technology, reiterated that it was necessary in the consideration of proposals to contemplate ways and means of strengthening international co-operation in the peaceful uses of outer space, so that all States would have access without discrimination to space technology to promote

their economic and social development according to their needs, interests and priorities. In this connection, these delegations underlined the need to further the objectives of Article I of the Outer Space Treaty.

48. Some delegations emphasized that all aspects of the arms race in outer space should be dealt with in order to achieve a comprehensive régime to prevent an arms race in outer space. Three possibilities were suggested to achieve a complete prohibition of all activities that could directly or indirectly contribute to an arms race in outer space: amending Article IV of the 1967 Outer Space Treaty, an additional protocol thereto, or the elaboration of a new comprehensive treaty.

* * *

49. Some delegations supported the idea of establishing a group of experts to provide technical expertise and guidance in the consideration of issues relating to the prevention of an arms race in outer space. The view was expressed that such a group could assist the Ad Hoc Committee with respect to problems of definition. Another idea was that the group could be entrusted with the task of defining the nature of the information that should be provided pursuant to the 1975 Registration Convention in order to permit that a distinction be made between military and non-military space objects. Some delegations shared the view that the participation of experts made a valuable contribution to the work of the Committee and believed that it would be useful for experts to be included in delegations. In their opinion, however, at this stage of the work, the Committee was not yet in a position to establish a group of experts with a specific mandate. Some delegations suggested that, with a view to reaching a common approach to the objective of preventing an arms race in outer space, it would be desirable that the Committee draw up an open-ended list of questions and, at an appropriate stage, identify those that needed further elaboration by experts under a clearly-defined mandate.

50. Some delegations considered that the work of the Ad Hoc Committee should be oriented towards the elaboration of measures to prevent an arms race in outer space. They believed that there were sufficient areas of consensus in the ideas and suggestions that had been put forward which could serve as points of departure for multilateral negotiations. In their view, the proposal for a structured discussion of Item 3 of the programme of work (CD/OS/WP.18) provided a basis to enhance the effectiveness of the Committee's work. They emphasized that the 1988 mandate of the Ad Hoc Committee should adequately reflect that view. Other delegations considered that it was necessary to continue the examination and identification of issues relevant to the prevention of an arms race in outer space with a view to reaching a level of common understanding that would permit the Committee to arrive at a common definition of the scope and specific objectives of multilateral efforts for the prevention of an arms race in outer space.

IV. CONCLUSION

51. The work carried out in 1987 contributed to the accomplishment of the Ad Hoc Committee's task. In accordance with its programme of work, the Committee advanced and developed further the examination and identification of various issues relevant to the prevention of an arms race in outer space. The discussions held contributed to a better understanding of a number of problems

and to a clearer perception of the various positions. It was recognized that the legal régime applicable to outer space, as such, is not sufficient to guarantee the prevention of an arms race in outer space. There was recognition of the significant role that the legal régime applicable to outer space plays in the prevention of an arms race in that environment and of the need to consolidate and reinforce that régime and enhance its effectiveness and of the importance of strict compliance with existing agreements, both bilateral and multilateral. During the discussions, there was once again recognition of the common interest of mankind in the exploration and use of outer space for peaceful purposes. In this context, the importance of paragraph 80 of the Final Document of the first special session devoted to disarmament, which states that "in order to prevent an arms race in outer space, further measures should be taken and appropriate international negotiations held in accordance with the spirit of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and other Celestial Bodies", was recognized. A preliminary consideration was given to a number of proposals and initiatives aimed at preventing an arms race in outer space and ensuring that its exploration and use will be carried out exclusively for peaceful purposes in the common interest and for the benefit of all mankind.

52. There was general recognition of the importance and urgency of preventing an arms race in outer space and readiness to contribute to that common objective. Consequently, it was agreed that no effort should be spared to assure that substantive work on this agenda item will continue at the next session of the Conference. It was recommended that the Conference on Disarmament re-establish the Ad Hoc Committee on the Prevention of an Arms Race in Outer Space with an adequate mandate at the beginning of the 1988 session, taking into account all relevant factors, including the work of the Committee since 1985.

CONFERENCE ON DISARMAMENT

CD/816
9 March 1988

Original: ENGLISH

Mandate for an Ad Hoc Committee under item 5 of the agenda of the Conference on Disarmament entitled "Prevention of an Arms Race in Outer Space"

(Adopted at the 446th Plenary meeting on 8 March 1988)

In the exercise of its responsibilities as the multilateral disarmament negotiating forum in accordance with paragraph 120 of the Final Document of the First Special Session of the General Assembly devoted to disarmament, the Conference on Disarmament decides to re-establish an Ad Hoc Committee under item 5 of its agenda entitled "Prevention of an arms race in outer space".

The Conference requests the Ad Hoc Committee, in discharging that responsibility, to continue to examine, and to identify, through substantive and general consideration, issues relevant to the prevention of an arms race in outer space.

The Ad Hoc Committee, in carrying out this work, will take into account all existing agreements, existing proposals and future initiatives as well as developments which have taken place since the establishment of the Ad Hoc Committee, in 1985.

The Ad Hoc Committee will report to the Conference on the progress of its work before the conclusion of the first part of its 1988 session, in view of the forthcoming third special session of the General Assembly devoted to disarmament. It will also report to the Conference before the conclusion of the second part of its 1988 session.

GE.88-60565/9195e

CONFERENCE ON DISARMAMENT

CD/817
CD/OS/WP.19
17 March 1988

ENGLISH
Original: RUSSIAN

LETTER DATED 17 MARCH 1988 FROM THE REPRESENTATIVE OF THE UNION OF SOVIET SOCIALIST REPUBLICS ADDRESSED TO THE PRESIDENT OF THE CONFERENCE ON DISARMAMENT, TRANSMITTING THE TEXT OF A DOCUMENT ENTITLED "ESTABLISHMENT OF AN INTERNATIONAL SYSTEM OF VERIFICATION OF THE NON-DEPLOYMENT OF WEAPONS OF ANY KIND IN OUTER SPACE"

I have the honour to transmit herewith a document entitled "Establishment of an international system of verification of the non-deployment of weapons of any kind in outer space".

I should be grateful if you would arrange for this document to be circulated as an official document of the Conference on Disarmament and as a working paper of the Ad hoc Committee on Prevention of an Arms Race in Outer Space.

(Signed) Y. NAZARKIN
Representative of the USSR to
the Conference on Disarmament

GE.88-60683/9324e

UNION OF SOVIET SOCIALIST REPUBLICS

ESTABLISHMENT OF AN INTERNATIONAL SYSTEM OF VERIFICATION OF THE NON-DEPLOYMENT OF WEAPONS OF ANY KIND IN OUTER SPACE

The USSR delegation shares the concern expressed by the representatives of many States participating in the Conference on Disarmament about the possibility of the arms race spreading to outer space.

During the 1987 session of the Conference on Disarmament the delegation of the Soviet Union proposed that, without waiting for the conclusion of an appropriate agreement on space, a start should be made on establishing a system for international verification of the non-deployment of weapons of any kind in outer space. The main purpose of such a system would be to determine that objects to be launched into and stationed in space were not weapons and were not equipped with weapons of any kind.

In the opinion of the USSR, the central place in such a system of verification might be taken by an International Space Inspectorate upon which the States parties to the agreement would confer the right of access, for inspecion purposes, to any objects intended to be launched into and stationed in outer space.

In the present paper, the USSR proposal concerning the International Space Inspectorate is given concrete form. In this connection, the Soviet Union believes that, depending upon the specifics of the actual agreements on the prevention of an arms race in space, the system of verification, the structure of the International Space Inspectorate and its modes of operation can be worked out and refined in the course of negotiations.

I. Aims and definitions

1. The main aim in establishing the International Space Inspectorate is to implement measures to verify that any objects to be launched into and stationed in outer space by States parties are not weapons and are not equipped with weapons of any kind.

2. On-site inspection directly before launch is the simplest and most effective method of making sure that objects to be launched into and stationed in space are not weapons and are not equipped with weapons of any kind.

3. In order to ensure a complete ban on space arms, measures of verification with the aid of the International Space Inspectorate should include:

(a) advance submission by the receiving State to the representatives of the International Space Inspectorate of information on every forthcoming launch, including the date and time of launch, the type of launch vehicle, the parameters of the orbit and general information on the space object to be launched;

(b) the permanent presence of inspection teams at all sites for launching space objects in order to check all such objects irrespective of the vector;

(c) the start of inspection ... days before the object to be launched into space is mounted on the launch vehicle or other vector;

(d) the holding of inspections also at agreed storage facilities, industrial enterprises, laboratories and testing centres;

(e) the verification of undeclared launches from undeclared launching pads by means of ad hoc on-site inspections.

4. The expression "space object" means any apparatus intended to be launched into and stationed in outer space.

5. The expression "weapons prohibited for launching into outer space" means systems and devices, irrespective of the physical principles on which they are based, that are created ab initio or are re-equipped to strike objects in outer space or in the atmosphere or on the surface of the Earth (the list of such systems and devices will be agreed upon in the course of negotiations).

6. Ballistic missiles whose launches are not connected with placing any objects into the orbit of an artificial Earth satellite or on a flight path to other heavenly bodies shall not be subject to verification by the International Space Inspectorate.

II. Structure and financing

1. The governing body directing the work of the International Space Inspectorate shall be a Council composed of representatives of all States parties to the Agreement. The Council shall hold regular annual sessions, as well as special sessions which may be convened by the Inspector-General at the request of a majority of States parties to the Agreement.

2. The executive body of the Council shall be the International Space Inspectorate; it shall be headed by an Inspector-General, who shall be elected by the Council for a term of five years.

3. The basis of the International Space Inspectorate shall consist of a corps of inspectors, who shall be selected from among the specialists of the States parties to the Agreement in accordance with the principle of equitable geographical representation.

4. The International Space Inspectorate shall have permanent inspection teams composed of ... persons assigned to the following launching sites of States parties (the list will be agreed upon in the course of negotiations).

5. Ad hoc inspection teams shall be composed of members of the corps of inspectors and of additional specialists assigned as necessary by States parties.

6. The activities of the International Space Inspectorate shall be financed out of the annual proportional contributions of the States parties (to be agreed upon in the course of negotiations).

III. Permanent inspection teams

1. The permanent inspection teams shall be appointed by the Inspector-General, by prior agreement with the receiving State, from among the candidates nominated by the States parties on the principle of equitable geographical representation and totalling not more than ... persons.

2. The heads of the permanent inspection teams shall be appointed by the Inspector-General, by prior agreement with the receiving State, from among the candidates nominated by the States parties.

3. Every permanent inspection team shall include representatives of the State party conducting regular launches of space objects in whose territory the team in question serves.

4. The heads and members of permanent inspection teams shall be accorded the privileges and immunities which are granted to diplomatic representatives in accordance with the Vienna Convention on Diplomatic Relations.

5. The receiving State shall render maximum assistance to the permanent inspection team in the performance of the team's functions.

6. The permanent inspection teams shall be stationed in proximity to the launching sites.

7. The permanent inspection team shall, by agreement with the receiving State, import and use the instruments, materials and equipment needed for the performance of its functions, the list of which will be agreed upon in the course of negotiations.

8. The activities of the permanent inspection teams shall be financed out of the budget of the International Space Inspectorate.

IV. Working procedure of the International Space Inspectorate

1. The receiving State shall submit to the International Space Inspectorate a general observation programme concerning each forthcoming launch of a space object ... days before the launch, at the same time forwarding a copy of the notification to the competent permanent inspection team.

2. A notification of a forthcoming launch shall include the following information: the place, date and time of launch, the type of launch vehicle, the parameters of the orbit and general data on the space object to be launched (the volume of information to be submitted will be agreed upon in the course of negotiations).

3. A reply to each notification of a forthcoming launch shall be transmitted by the International Space Inspectorate to the receiving State not later than ... days after the submission of the notification and shall be accompanied by the sending of instructions to the competent permanent inspection team to hold an inspection.

4. Together with the notification, the receiving State shall provide a general observation programme including the following information:

The date, time and place of the inspectors' access to the space object;

The planned duration of the observation programme;

The languages to be used for interpretation and/or translation;

Other necessary information;

The terms for the supply of any observation equipment that will be made available to the observers by the receiving State.

5. To enable the inspectors to determine with sufficient certainty that the space object is not a weapon and is not equipped with weapons, the receiving State shall in the course of the inspection, in accordance with the observation programme:

Provide the inspectors with the necessary instruments, materials and equipment, the list of which will be agreed in the course of negotiations.

The inspectors may also use their own instruments, materials and equipment, which shall be subject to checking and approval by the receiving State;

Provide the inspectors, in the course of the observation programme, with necessary information directly connected with the performance by the inspectors of their functions;

Provide the inspectors with transport for use in the area of the launching pad;

Admit the inspectors to the sites where space objects are mounted on the launch vehicle and to their launching sites;

Provide the inspectors with facilities for prompt communication with the International Space Inspectorate (the receiving State shall not be bound to bear the cost of the use of the means of communication by the inspectors);

Provide the inspectors with adequate board and lodging at a suitable place for carrying out the observation programme and with medical assistance if necessary.

V. Verification of undeclared launches

1. A State party has the right to ask the International Space Inspectorate for assistance in clarifying any situation which may be considered unclear as a result of suspicion of the undeclared launch of a space object. For the purposes of clarifying the situation, the International Space Inspectorate may request all necessary information from specially designated observatories (the list will be agreed in the course of negotiations).

2. A State party has the right to request the International Space Inspectorate to obtain clarification from any State party regarding a situation which may be considered unclear as a result of suspicions of the undeclared launch of a space object. In this connection the requesting State shall provide the International Space Inspectorate with all the information which has given rise to the suspicions of the undeclared launch of a space object.

In this case the following procedure shall be applied:

(a) The International Space Inspectorate shall forward the request for clarification to the State party concerned within 24 hours after its receipt;

(b) The requested State shall furnish clarification to the International Space Inspectorate within ... days after the receipt of the request. The International Space Inspectorate shall forward the clarification to the requesting State within 24 hours after its receipt;

(c) In the event that the requesting State party considers the clarification insufficient, it may request the International Space Inspectorate to take a decision to hold an ad hoc inspection at the launching site and in the area in which detachable parts of the launch vehicle and spacecraft land.

3. The International Space Inspectorate shall inform the States parties of any requests for clarification of a situation which may be considered unclear as a result of suspicions of the undeclared launch of a space object.

VII. Ad hoc inspections as a result of suspicions of the undeclared launch of a space object

1. The decision to hold an ad hoc inspection in order to clarify a situation which may be considered unclear as a result of suspicions of the undeclared launch of a space object shall be taken by the International Space Inspectorate on the basis of a request from a State party which considers the clarifications received to be insufficient.

2. The ad hoc inspection shall be carried out by an ad hoc inspection team composed, on the principle of equitable geographical representation, of members of the corps of inspectors of the International Space Inspectorate and of the permanent inspection team in the country concerned. The State party which has requested the holding of an ad hoc inspection may nominate not more than two representatives of its own, who shall be included in the team as observers and shall enjoy all privileges and immunities equally with the other members of the team.

3. Within 24 hours after the adoption of the decision to hold an ad hoc inspection, the International Space Inspectorate shall address a request to the State party concerned. In the request for the holding of an ad hoc inspection, the International Space Inspectorate shall inform the receiving State of the following:

The grounds for the request;

The location of the area mentioned, as defined by geographical co-ordinates;

Preferable points of entry for the ad hoc inspection team;

Where in the area mentioned the inspection will begin;

Whether the inspection will be conducted on the ground, from the air or by both methods simultaneously;

In the case of an aerial inspection, what aircraft will be used;

Whether the ad hoc inspection team will use its own ground transport or that of the receiving State;

The particulars needed for the issue of diplomatic visas to the inspectors entering the receiving State.

5. A State which has received a request for the International Space Inspectorate for the holding of an ad hoc inspection shall be bound to afford the ad hoc inspection team from the opportunity to carry out such an inspection without delay.

6. A reply to a request for an ad hoc inspection shall be provided within 24 hours after the receipt of the request.

7. The ad hoc inspection team shall be composed of not more than ... persons. The inspection shall be completed not later than ... days after the arrival of the ad hoc inspection team in the area mentioned.

8. While the inspectors are in the territory of the receiving country in connection with the holding of an ad hoc inspection, they shall be accorded privileges and immunities in accordance with the Vienna Convention on Diplomatic Relations.

9. The receiving State shall provide the team with adequate board and lodging at a place which enables the inspectors to perform their functions and with medical assistance if necessary.

10. The ad hoc inspection team shall use its own maps, instruments, materials and equipment.

11. The ad hoc inspection team shall also have access to the appropriate means of communication of the receiving State, including facilities for maintaining continuous communication between members of the inspection team in an aircraft and others in a ground vehicle used in the inspection.

CONFERENCE ON DISARMAMENT

CD/833
25 April 1988

Original: ENGLISH

SPECIAL REPORT OF THE AD HOC COMMITTEE ON THE PREVENTION OF AN ARMS RACE IN OUTER SPACE

I. INTRODUCTION

1. The Ad Hoc Committee on the Prevention of an Arms Race in Outer Space was first established at the 1985 session pursuant to the following decision of the Conference on Disarmament:

> "In the exercise of its responsibilities as the multilateral disarmament negotiating forum in accordance with paragraph 120 of the Final Document of the first special session of the General Assembly devoted to disarmament, the Conference on Disarmament decides to establish an Ad Hoc Committee under item 5 of its agenda entitled 'Prevention of an arms race in outer space'.
>
> "The Conference requests the Ad Hoc Committee, in discharging that responsibility, to examine, as a first step at this stage, through substantive and general consideration, issues relevant to the prevention of an arms race in outer space.
>
> "The Ad Hoc Committee will take into account all existing agreements, existing proposals and future initiatives and report on the progress of its work to the Conference on Disarmament before the end of its 1985 session."

At the 1986 session, the Conference re-established the Committee and requested it "... to continue to examine, and to identify, through substantive and general consideration, issues relevant to the prevention of an arms race in outer space [... taking] into account all existing agreements, existing proposals and future initiatives as well as developments which have taken

place since the establishment of the Ad Hoc Committee in 1985 ...". At the 1987 and 1988 sessions the Committee was re-established with the same mandate as in 1986. In that connection, at both sessions, the President of the Conference and various delegations made statements regarding the scope of the mandate. All of those statements made possible the adoption of the mandate.

II. ORGANIZATION OF WORK AND DOCUMENTS

2. In 1985 the Ad Hoc Committee was chaired by Ambassador Saad Alfarargi (Egypt), in 1986 by Ambassador Luvsandorjiin Bayart (Mongolia), in 1987 by Ambassador Aldo Pugliese (Italy) and in 1988 by Ambassador Adolfo Raúl Taylhardat (Venezuela). Miss Aida Luisa Levin, Senior Political Affairs Officer, United Nations Department of Disarmament Affairs, served as the Committee's Secretary.

3. During the period covered by this report, the Ad Hoc Committee held a total of 62 meetings.

4. At various stages of the work, representatives of the following States not members of the Conference participated in the meetings of the Ad Hoc Committee: Austria, Denmark, Finland, Greece, Ireland, New Zealand, Norway, Portugal, Spain, Switzerland, Turkey and Zimbabwe.

5. In addition to the documents of the 1985, 1986 and 1987 sessions, 1/ the following documents were before the Ad Hoc Committee at the 1988 session:

CD/807	Letter dated 15 February 1988 addressed to the President of the Conference on Disarmament by the Permanent Representatives of Argentina, India, Mexico and Sweden transmitting the Stockholm Declaration, adopted in Stockholm on 21 January 1988 by the Heads of State or Government of Argentina, Greece, India, Mexico and Sweden and the First President of Tanzania;
CD/816	Mandate for an Ad Hoc Committee under item 5 of the agenda of the Conference on Disarmament entitled "Prevention of an arms race in outer space";

1/ The list of documents of these sessions may be found in the respective reports of the Ad Hoc Committee, which are an integral part of the annual reports of the Conference on Disarmament to the General Assembly (CD/642, CD/732 and CD/787).

CD/817 Letter dated 17 March 1988 from the Representative of the Union of Soviet Socialist Republics addressed to the President of the Conference on Disarmament, transmitting the text of a document entitled "Establishment of an international system of verification of the non-deployment of weapons of any kind in outer space" (also issued as CD/OS/WP.19);

In addition, the Committee had before it the following working papers:

CD/OS/WP.19 Letter dated 17 March 1988 from the Representative of the Union of Soviet Socialist Republics addressed to the President of the Conference on Disarmament, transmitting the text of a document entitled "Establishement of an international system of verification of the non-deployment of weapons of any kind in outer space" (also issued as CD/817);

CD/OS/WP.20 1988 Programme of Work

CD/OS/WP.21 Statement by the Chairman of the Ad Hoc Committee at the 3rd meeting, on 22 March 1988;

CD/OS/WP.22 Proposed Programme of Work for 1988, submitted by the Group of 21.

III. SUBSTANTIVE WORK DURING 1985-1988

6. In discharging the tasks set forth in its mandate, the Ad Hoc Committee at the beginning of each session adopted a programme of work covering the following subjects: issues relevant to the prevention of an arms race in outer space; existing agreements and existing proposals and future initiatives. Since 1986 the Committee has worked under the following programme of work:

"1. Examination and identification of issues relevant to the prevention of an arms race in outer space.

2. Existing agreements relevant to the prevention of an arms race in outer space.

3. Existing proposals and future initiatives on the prevention of an arms race in outer space.

In carrying out its work, the Ad Hoc Committee will take into account developments which have taken place since the establishment of the Committee in 1985."

The work of the Committee was governed by the mandate only.

A. Issues relevant to the prevention of an arms race in outer space

7. In the course of the work, various delegations drew attention to a number of issues relevant to the prevention of an arms race in outer space, such as:

the status of outer space as the common heritage of mankind which should be used exclusively for peaceful purposes, the need to prevent an arms race in outer space, the absence at present of weapons in space, the identification of threats to which space objects are confronted, the relationship between the prevention of an arms race in outer space and arms limitation and disarmament measures in other areas, the relationship between bilateral and multilateral efforts to prevent an arms race in outer space and questions relating to verification and compliance.

8. There was general recognition of the importance of the bilateral negotiations between the Union of Soviet Socialist Republics and the United States of America. Some delegations, while stressing that there was clear need for the Conference on Disarmament to play a role with respect to problems relating to the prevention of an arms race in outer space, held that nothing should be done that would hinder the suscess of the bilateral negotiations. Furthermore, they believed that multilateral disarmament measures in this area could not be considered independently of developments at the bilateral level. Other delegations, emphasized that ongoing bilateral negotiations in no way diminished the urgency of multilateral negotiations and reaffirmed that, as provided for in the resolutions adopted by the General Assembly on the subject, the Conference on Disarmament, as the single multilateral disarmament negotiating forum, had the primary role in the negotiation of a multilateral agreement or agreements, as appropriate, on the prevention of an arms race in outer space in all its aspects.

9. Many delegations reiterated that outer space is the common heritage of mankind and should be reserved exclusively for peaceful uses to promote the scientific, economic and social development of all nations. Stressing the overriding importance and urgency of preventing an arms race in outer space, they expressed concern that the military competition between the two major powers was being extended into outer space. In their view, the introduction of weapons into space would result in an irreversible competition in the field of space weaponry which would have dangerous consequences for international peace and security, give the arms race a qualitatively new dimension, undermine existing agreements and jeopardize the disarmament process as a whole. They, therefore, believed that the priority task of the Ad Hoc Committee should be the immediate prohibition of the testing, production and deployment of weapons systems and their components adaptable for use in, towards, or from space. To that end, in their opinion, attention should

focus on the question of the measures that should be adopted. These delegations also pointed to the military uses of space that were already taking place as an extension of weapons systems on Earth. In that connection, it was noted that information gathered by reconnaissance and surveillance satellites had been used in support of military operations against developing countries. The view was expressed that to guard against such uses, satellite reconnaissance and surveillance activities should be entrusted to an international agency. The view was also expressed that, in the interim, space powers should give assurances to non-aligned and neutral States against the discriminatory and inequitable use of satellites.

10. Delegations of a group of socialist countries shared the view that outer space is the common heritage of mankind and that, consequently, its exploration and use should be preserved exclusively for peaceful purposes in order to promote the scientific, economic and social development of all countries. They also stressed the overriding importance and urgency of preventing an arms race in outer space. They were concerned about the danger of the extension of the arms race into outer space which would, in their view, accelerate the arms race in other areas and make reductions in strategic nuclear arsenals impossible. These delegations were of the view that the stage of exploring the problem of preventing an arms race in outer space had been passed and that the Ad Hoc Committee should proceed to more practical and concrete work on the elaboration of measures aimed at the prevention of an arms race in outer space. They believed that the most important aspect of the problem of preventing an arms race in outer space was preventing the introduction of weapons in space through the prohibition of space-strike weapons. Their understanding of the term was that it included: first, space-based ABM systems of any principle of action, second, space-based systems of any principle of action designed to strike from space targets in the atmosphere or on the surface of the Earth and, third, systems of any principle of action and however based designed to strike space objects. They underlined the importance of assuring that the non-deployment of weapons in space would be effectively verified and to that end supported the establishment of an international inspectorate, as discussed below in paragraph 33. These delegations also noted that, although satellites were being used in a variety of support missions and were playing an important role in the strategic relationship, there had been no weapons permanently deployed in outer space up to the present time. They further observed that ballistic missiles having their launching sites and targets situated on Earth, were not space strike weapons either.

11. Some delegations, while attaching utmost importance to the objective of preventing an arms race in outer space, stated that for thirty years space had appeared as an appropriate environment for national security activities like the Earth and the atmosphere. They also noted that military systems deployed in space accomplished a variety of support missions and that they played a vital role in the strategic relationship of the two major powers. They believed that it was necessary to give thorough consideration to the role that the military uses of space played in the maintenance of international peace and security. Beyond that, they noted that outer space was not immunme from utilization by existing weapons systems such as ballistic missiles. These delegations rejected selective approaches to the prevention of an arms race in outer space, as represented by the concept of "space strike weapons" which did not give an accurate picture of the threats faced by space objects and of the military and strategic situation relevant to outer space. They also criticized attempts to define categories of "space strike weapons" which were at the same time too broad, because they placed in the same category systems with different functions and implications, and too narrow because they excluded weapons and other means which have the capability to disrupt the normal functioning of space objects. They were of the view that, while the Ad Hoc Committee had had very substantial discussions, fundamental divergencies persisted and the work was still in an exploratory phase. They considered that issues relevant to the prevention of an arms race in outer space could not be examined in isolation, but should be approached in the wider context of developments in other fields of arms limitation and disarmament, in particular the reduction of nuclear weapons. These delegations emphasised the need for a more thorough examination of questions relating to verification of, and compliance with, existing and future agreements. They also called for detailed information on national space programmes of military significance.

12. One delegation stated that outer space should be explored and used in the service of peace and economic, scientific and cultural development for the benefit of the entire human race. It reiterated that it opposed the qualitative escalation of the arms race to outer space. It considered that the two major space powers, which at present were the only ones that possessed and were continuing the development of space weapons, should assume special responsibility for halting the arms race in outer space. It believed that they should adopt practical measures in undertaking not to develop, test and deploy space weapons, and an international agreement on the complete

prohibition of space weapons should be concluded through negotiations as soon as possible. It was of the view that at the present stage, work in the Conference on Disarmament should centre on the solution of the problems that were most directly related to preventing the "weaponization" of outer space.

B. Existing agreements relevant to the prevention of an arms race in outer space

13. There was general recognition that, as provided for in the 1967 Outer Space Treaty, activities in the exploration and use of outer space should be carried out in accordance with international law, including the Charter of the United Nations. Delegations generally also recognised the relevance of the Charter provisions concerning the non-use of force.

14. Some delegations emphasized that the Charter of the United Nations played a central role in the legal régime applicable to outer space and, in that context, highlighted the special importance of the Charter provisions on the non-use of force - Articles 2(4) and 51 - which, taken together, prohibit any act of aggression in outer space. Accordingly, they believed that these provisions, together with other agreements, afforded a substantial degree of protection to space objects. Various other delegations, while acknowledging the importance of the Charter, considered that its provisions on the non-use of force were not, and by their nature could not be, sufficient to prevent an arms race in outer space since they did not address the problem of the development, testing, production and deployment of weapons in space. For example, these delegations recalled that the legal provisions of those Articles had not prevented the arms race on Earth, nor did they diminish the universally recognized need to negotiate disarmament agreements and even to ban specific types or whole classes of weapons. Some delegations also maintained that Article 51 of the Charter could not be interpreted as justifying the use of space weapons for any purpose or the possession of any type of space weapons. They further stressed that Article 51 could not be invoked to legitimize the use or threat of use of force in or from outer space.

15. In the course of the work, various mutlilateral and bilateral instruments were examined, inter alia: the Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Under Water (1963), the Treaty on Principles Governing the Activities of States in the Exploration and Use of

Outer Space, including the Moon and Other Celestial Bodies (1967), the Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space(1968), the Agreement on Measures to Reduce the Risk of Outbreak of Nuclear War Between the United States of America and the Union of Soviet Socialist Republics (1971), the Convention on International Liability for Damage Caused by Space Objects (1972), the Treaty between the United States of America and the Union of Soviet Socialist Republics on the Limitation of Anti-Ballistic Missile Systems (1972), the Agreement between the United States of America and the Union of Soviet Socialist Republics on the Prevention of Nuclear War (1973), the Convention on Registration of Objects Launched into Outer Space (1975), the Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques (1977) and the Agreement Governing the Activities of States on the Moon and other Celestial Bodies (1979). In this connection, reference was made to documents CD/OS/WP.6 and 7.

16. It was noted that under the multilateral agreements in force: (1) it is prohibited to place in orbit around the Earth any objects carrying nuclear weapons or any other weapons of mass destruction and to install such weapons on celestial bodies or station them in outer space in any other manner; (2) the Moon and other celestial bodies are to be used exclusively for peaceful purposes and the establishment of military bases, installations and fortifications, the testing of any type of weapons and the conducting of military manoeuvres on celestial bodies are forbidden; (3) the testing of nuclear weapons or any other nuclear explosions in outer space is prohibited.

17. Many delegations recognized that the outer space legal régime played and continues to play a significant role for the prevention of an arms race in outer space. It is for this reason that many delegations stressed the need to consolidate and reinforce that régime and enhance its effectiveness and the importance of strict compliance with existing agreements, both bilateral and multilateral.

18. Many delegations noted the USSR/US statement at the December 1987 summit that their bilateral delegations in Geneva be instructed "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".

19. Various delegations, while recognizing that the existing legal régime placed some barriers to the arms race in outer space, through limitations on

certain weapons and military activities in that environment, stressed that in some areas there were loopholes and some provisions of this legal régime lent themselves to different interpretations. They noted that the 1967 Outer Space Treaty, because of its limited scope, left open the possibility of the introduction of weapons in space, other than nuclear weapons or other weapons of mass destruction, in particular anti-satellite weapons and space-based anti-ballistic missile systems. They also noted that some of the Treaty's basic terms lent themselves to different interpretations. Furthermore, in their opinion, current developments in space science and technology, coupled with ongoing military space programmes, underscored the inadequacy of existing legal instruments to prevent an arms race in outer space. They, therefore, held that there was an urgent need to strengthen, supplement and amplify the existing legal régime applicable to outer space with a view to the effective prevention of an arms race in outer space in all its aspects.

20. Some delegations considered that there already exists a considerable body of international law applicable to outer space and that the arms control régime in that environment is much more comprehensive than that on Earth. These delegations also believed that broader participation in existing multilateral agreements and strict observance of both multilateral and bilateral agreements would strengthen the legal régime applicable to outer space. They believed that in order to identify lacunae that might exist in the legal régime governing outer space it was first necessary to establish common ground on what were permitted and prohibited uses of outer space. They noted that the examination of existing agreements in the Ad Hoc Committee had revealed differences of view concerning the meaning of a number of basic terms -- such as "peaceful uses", "militarization" -- which remain to be defined in a satisfactory and generally acceptable fashion. Consequently, in their view, there was still a need to arrive at a common understanding of what is forbidden and what is permitted under the legal régime applicable to outer space. In particular, these delegations were of the opinion that it was necessary to give in-depth consideration to the question of terminology with a view to reaching greater precision in the use of terms and referred to document CD/OS/WP.15 as a good basis for work. One of these delegations circulated a two-volume dictionary of terms relating to space science and technology, which was generally welcomed.

21. One delegation, in addition to sharing the views reflected in the above paragraph, considered that the existing legal régime for arms control in outer space was equitable, balanced and extensive and that it could be said that it had been far more successful in preventing an arms race than any comparable legal régime on Earth. In the view of this delegation, since the

advent of the space age thirty years ago, recurring predictions of an impending so-called arms race in outer space have not been borne out. The existing legal régime can be seen to be wide-ranging and logical. Moreover, the existing régime did not contain gaps and holes; instead, it placed strict legal controls on virtually any possible type of weapon in outer space and had several significant accomplishments to its credit. This delegation further noted that, for example, outer space is a zone free of nuclear weapons and not one known act in violation of Article 2, paragraph 4 of the United Nations Charter has occurred in space. In addition, it pointed out that in several cases there are even redundant and mutually-reinforcing legal constraints. It further believed that what was needed now was more participation in, better compliance with, and a fuller understanding of the existing legal régime. It maintained that if all nations were to comply fully with all existing agreements, there would be no doubt that outer space would be used only for peaceful purposes.

22. Many delegations were of the view that all States, in particular the space powers, should become parties to the multilateral treaties in force that contain provisions relevant to the prevention of an arms race in outer space, in particular the 1963 Partial Test Ban Treaty and the 1967 Outer Space Treaty.

C. Existing proposals and future initiatives on the prevention of an arms race in outer space

23. Proposals and views were put forward by various delegations for consideration in the course of the work.

24. Many delegations reiterated that the overall objective of the Conference on Disarmament should be the complete prohibition of the development, testing, production and deployment of space weapons. Pending the realization of that comprehensive objective, they considered that efforts should be concurrently directed towards the adoption of partial measures. Some delegations considered one of the most urgent problems to be a ban on anti-satellite weapons. Some other delegations maintained that the strengthening of the Registration Convention, inter alia, through effective verification provisions; prohibition of the introduction of new weapon systems into outer space; and ensuring that existing treaties safeguarding the peaceful uses of outer space, as well as the 1972 Treaty on the Limitation of Anti-Ballistic Missile Systems are fully complied with, strenghthened and extended as necessary in the light of recent technological advances, were also urgent. In this context, mention was also made of

other measures called for in the Harare Declaration adopted at the Eighth Conference of Heads of State or Governments of Non-aligned Countries. These delegations recalled that individually or collectively they had presented the following proposals for consideration by the Ad Hoc Committee under point 3 of the programme of work:

- Amendment to Article IV of the 1967 Outer Space Treaty or additional protocol thereto;
- Definitions of space weapons;
- Declarations on the non-deployment of weapons in space;
- General treaty on the prohibition of anti-satellite weapons with specific protocols applicable to different categories of satellites;
- Prohibition of dedicated ASAT weapons;
- ASAT moratorium;
- Multilateral instrument to supplement the 1972 ABM Treaty;
- Strengthening of the 1975 Registration Convention;
- Establishment of a group of governmental experts.

25. Delegations of socialist countries submitted the following proposals for measures aimed at the prevention of an arms race in outer space: draft treaty on the prohibition of the stationing of weapons of any kind in outer space (CD/274), draft treaty prohibiting the use of force in outer space, or from space against the Earth (CD/476), main provisions of a treaty on the prohibition of ASAT weapons and ways to ensure the immunity of space objects (CD/777), establishment of an international system of verification of the non-deployment of weapons of any kind in outer space, based on the international space inspectorate (CD/817) and the proposal for a structured discussion on item 3 of the programme of work (CD/OS/WP.18).

26. Some delegations stated that proposals for measures relating to the prevention of an arms race in outer space should be judged in terms of their effectiveness, their contribution to international peace and security and their verifiability. Some of those delegations were also not in favour of proposals which have been made by delegations calling for an immediate ASAT ban, immunity for all satellites, a ban on so-called space weapons, a comprehensive ban on the use of force in space, an international inspectorate for the verification of the non-deployment of weapons in outer space and other similar approaches.

27. Various delegations considered that existing proposals for the definition of space weapons (CD/OS/WP.13/Rev.1 and CD/OS/WP.14/Rev.1 and Add.1) shared common elements and thus provided a good basis for further work towards the objective of prohibiting the emergence of space weapons. Other delegations, were not in favour of this approach since, in their view, it did not give an accurate picture of all the threats confronting space objects and also overlooked other significant factors of the military and strategic situation relevant to outer space.

28. Various delegations discussed proposals concerning the prohibition of anti-satellite weapons and the protection of satellites. It was suggested that one possible structure for an instrument on the subject would be in the form of a general treaty with specific protocols applicable to different categories of satellites. Reference was made to the suggestion that, in order to assure the verifiability of treaty commitments, untested anti-satellite systems could be prohibited, i.e., those capable of attacking satellites in high orbit. Another suggestion was that for purposes of an ASAT prohibition, a distinction might be made between dedicated anti-satellite systems, designed and tested for a flexible attack capacity, and ancillary systems with a limited and not clearly identifiable anti-satellite capacity. Still another view was that a treaty on the subject should: ban the use of force against any space object; prohibit the deliberate destruction, damage or interference with the normal functioning of space objects; proscribe the development, production or deployment of ASAT weapons; and provide for the destruction under international control of any existing ASAT weapons and to prevent the utilization and modification of any space object as well as manned spacecraft for anti-satellite purposes. Some delegations which supported a ban on ASAT weapons, emphasized that such a ban on ASAT weapons should give protection only to satellites performing peaceful functions and not to those engaged in activities which threatened the security of other States. An ASAT ban, therefore, presupposed an agreed definition of peaceful functions and a verification system aimed at determining whether objects launched into space fulfilled this criterion. Some other delegations were of the view that the issue of defining peaceful functions would have to be resolved in the context of negotiations on an ASAT ban. Commenting on proposals for the protection of satellites, one delegation noted that it would first be necessary to establish as clearly as possible within the context of existing international law and established international practice, which satellites perform functions that are in the common interest, what these common interests are and how these satellites

contribute to them, following which, it would be necessary to identify how these satellites could be protected. In this regard one delegation also recalled that a proposal had been made that active discussion be entered into on measures to protect from attack all satellites - and their associated ground stations - that contribute to strategic stability and to verification of arms control arrangements. Some delegations commented in detail on a wide range of means that were available to interfere with the functioning of satellites which, in their view, demonstrated that in the examination of proposals to prohibit ASAT systems it was clearly necessary to take into account that the concept involved much more than weapons systems specifically designed and intended to destroy satellites. They pointed out the limitations, both of the notion of "intention" for the classification of a device as an ASAT weapon, and of any distinction between so-called "dedicated ASAT systems" and "ancillary ASAT systems". In addition, they also stated that the diversity and the characteristics of the potential threat against space objects could, in their view, make a treaty on the prohibition of ASAT systems difficult to verify and easy to circumvent.

29. Commenting on proposals for the adoption of measures for the protection of space objects, some delegations noted that the majority of satellites perform military missions and held that to grant them immunity would be tantamount to legitimizing the military uses of space. In their opinion, the adoption of measures to protect space objects should be accompanied by a strengthening of the 1975 Registration Convention to assure that the functions and purposes of protected space objects are clear. It was suggested that the Convention should include provisions to verify the accuracy of the information provided thereunder and that the verification of the nature of space objects could be carried out at the launching sites.

30. Delegations of socialist countries noted that scope and procedure for broadening the international exchange of information on the space activities of States were included in the proposal on the establishment of an international space inspectorate.

31. Some delegations mentioned as worthy of study, such ideas and suggestions as the possibility of multilateralizing the provisions of existing bilateral agreements relating to the immunity of satellites; the role that the international monitoring of satellites might play; the possibility of placing constraints on some elements of anti-satellite activity, consistent with the security interests of all States; and a

"rules-of-the-road" agreement for space. Some delegations suggested several possible measures relevant to the security of satellites and to confidence-building and transparency for consideration by the Conference on Disarmament in its exploration of the prevention of an arms race in outer space: the reaffirmation and the development of the principle of non-interference with peaceful space activities; the elaboration of a code of conduct in outer space to prevent the risks and fears that could arise from certain manoeuvres of space objects; the reinforcement for greater transparency of the system of notification established by the 1975 Convention on the Registration of Space Objects; and international cooperation for the use of earth monitoring satellites for the verification of arms control and disarmament agreements.

32. Referring to proposals for banning the use of force in outer space, immunizing satellites from attack, immunizing satellite ground stations from attack and banning anti-satellite weapons, one delegation held that such proposals were either redundant or perhaps even prejudicial to the legal controls that were already in place. In its view, all uses of force except in self-defence were currently prohibited by law; all satellites and the ground stations associated with such satellites were already protected from attack except in cases of self-defence; the existing legal régime placed many restraints on the nature, deployment and uses of ASATs; and a comprehensive ASAT ban would raise many complex problems. Regarding proposals and views to amend the Registration Convention, this delegation stated that consideration of the Registration Convention falls properly within the venue of the United Nations Committee for the Peaceful Uses of Outer Space (COPUOS), and not the Conference on Disarmament's Ad Hoc Committee on Outer Space.

33. Various delegations noted that existing legal restraints were not comprehensive enough to prevent the emergence of non-nuclear ASAT weapons in outer space and should, therefore, be supplemented by agreements which would preclude the introduction of such weapons in that environment.

34. Some delegations, noting that limits on offensive nuclear weapons would be possible only if strict constraints were placed on BMD systems, emphasized the need to supplement the bilateral ABM Treaty through the conclusion of a multilateral agreement of unlimited duration banning or placing stringent limits on such systems. In this connection, they recalled the proposal to this effect made by one delegation in 1986 (CD/OS/WP.12).

35. Various delegations supported the proposal that members of the Conference on Disarmament should declare that none of them has deployed weapons in outer space on a permament basis. Other delegations questioned its usefulness because, in their view, such a declaration was not verifiable and might interfere with the bilateral negotiations.

36. Delegations generally recognized the importance of verification in the context of measures to prevent an arms race in outer space. Beyond that, some delegations considered that verification did not raise insurmountable obstacles to the conclusion of agreements to prevent an arms race in outer space since, in their view, it should be possible to assure verification of compliance through a combination of national technical means and international procedures. A number of delegations were of the view that verification functions should be entrusted to an international body to provide the international community with an independent capability to verify compliance. In this connection reference was made to the proposed international satellite monitoring agency. Mention was also made of the possibilities offered by the PAXSAT concept - a research programme on the feasibility of the application of remote-sensing techniques to the verification of multilateral arms limitation and disarmament agreements and covering both space-to-space and space-to-ground remote-sensing.

37. Sharing these views, socialist delegations underlined that the non-deployment of weapons in space should be effectively verified. They supported the creation of a world space organization which would, inter alia, perform verification functions. They also suggested that, pending the conclusion of an appropriate agreement on space, a start should be made on establishing a system for international verification of the non-deployment of weapons of any kind in outer space. The main purpose of such a system would be to determine that objects to be launched into and stationed in space were not weapons and were not equipped with weapons of any kind. In the opinion of the group of socialist countries, the central place in such a system of verification might be taken by an international space inspectorate upon which the States parties to the agreement would confer the right of access, for inspection purposes, to any objects intended to be launched into and stationed in outer space. In order to ensure a complete ban on space weapons, measures of verification with the aid of the international space inspectorate should include, inter alia; advance submission by the receiving State to the representatives of the international space inspectorate of information on every forthcoming launch, including the date and time of launch, the type of launch vehicle, the parameters of the orbit and general

information on the space object to be launched; the permanent presence of inspection teams at all sites for launching space objects in order to check all such objects irrespective of the vector; and the verification of undeclared launches from undeclared launching pads by means of extraordinary on-site inspections without right of refusal.

38. Some delegations maintained that issues relating to verification and compliance needed to be considered in greater depth. They noted that many elements of the existing legal régime applicable to outer space were relatively simple and stated that the more complicated any arms control agreement for outer space was, the more difficult it would be to verify compliance with it. They believed that verification and compliance issues were particularly sensitive and complex in this area because, on the one hand, vital national security interests were at stake and, on the other hand, the vastness of space and the possibilities of concealment on Earth posed special problems. With respect to the proposal for the establishment of a world space organization, some delegations were of the opinion that its consideration was beyond the competence of the Conference on Disarmament. They also foresaw substantial technical, political and organizational difficulties associated with an international verification inspectorate. In this regard, they believed that one had to keep in mind that virtually any space object, if controlled and manipulated properly, is capable of serving as a weapon. They stated that this basic fact plus many technical, definitional, organizational and political obstacles bar the way to a successful international verification inspectorate.

39. Some delegations, expressing concern at restrictions being placed on the transfer of space technology, stated that in the consideration of proposals it was necessary to contemplate ways and means of strengthening international co-operation in the peaceful uses of outer space so that all States would have access without discrimination to space technology to promote their economic and social development according to their needs, interests and priorities. In that connection, these delegations underlined the need to further the objectives of Article I of the Outer Space Treaty.

40. Delegations of socialist countries drew attention to the proposal for the establishment of a world space organization organization and to the proposal that the leading space powers establish an international centre for conducting joint research and development of space technology prototypes ordered by developing countries.

41. Many delegations emphasized that all aspects of the arms race in outer space should be dealt with in order to achieve a comprehensive régime to prevent an arms race in outer space. Three possibilities were suggested to achieve a complete prohibition of all activities that could directly or indirectly contribute to an arms race in outer space: amending Article IV of the 1967 Outer Space Treaty, an additional protocol thereto, or the elaboration of a new comprehensive treaty or partial agreements aimed at the prevention of an arms race in outer space, as appropriate.

* * *

42. Some delegations supported the idea of establishing a group of governmental experts to provide technical expertise and guidance in the consideration of issues relating to the prevention of an arms race in outer space. The view was expressed that such a group could assist the Ad Hoc Committee with respect to problems of definition and verifiability of space assets. Another idea advanced by some delegations was that the group could be entrusted with the task of defining the nature of the information that should be provided pursuant to the 1975 Registration Convention in order to permit that a distinction be made between military and non-military space objects. Other delegations believed that a governmental expert group was not the only alternative and that other appropriate arrangements could be considered to provide scientific and technical expertise to the Committee. Some delegations shared the view that the participation of experts made a valuable contribution to the work of the Committee and believed that it would be useful for experts to be included in delegations. In their opinion, however, at this stage of the work, the Committee was not yet in a position to establish a group of experts with a specific mandate. Some delegations suggested that, with a view to reaching a common approach to the objective of preventing an arms race in outer space, it would be desirable that the Committee draw up an open-ended list of questions and, at an appropriate stage, identify those that needed further elaboration by experts under a clearly-defined mandate.

43. Some delegations were of the view that the Ad Hoc Committee had completed the exploratory phase of its work and that it should concentrate on the consideration of measures to prevent an arms race in outer space in all its aspects. They believed that the ideas and suggestions that had been put forward in the course of the work provided sufficient areas of consensus for the initiation of multilateral negotiations on such measures. Other delegations considered that, while the work accomplished had contributed to a

broader and deeper understanding of the subject, it was still necessary to continue the examination and identification of issues relevant to the prevention of an arms race in outer space in order to reach a level of common understanding that would permit the Committee to arrive at a common definition of the scope and specific objectives of multilateral efforts for the prevention of an arms race in outer space.

IV. CONCLUSION

44. There was general recognition in the Ad Hoc Committee of the importance and urgency of preventing an arms race in outer space and readiness to contribute to that common objective. The work carried out by the Committee since its establishment contributed to the accomplishment of its task. The Commitee advanced and developed further the examination and identification of various issues relevant to the prevention of an arms race in outer space. The discussions held contributed to a better understanding of a number of problems and to a clearer perception of the various positions. It was recognized that the legal régime applicable to outer space by itself does not guarantee the prevention of an arms race in outer space. There was recognition of the significant role that the legal régime applicable to outer space plays in the prevention of an arms race in that environment and of the need to consolidate and reinforce that régime and enhance its effectiveness and of the importance of strict compliance with existing agreements, both bilateral and multilateral. In the course of the deliberations, the common interest of mankind in the exploration and use of outer space for peaceful purposes was acknowledged. In this context, there was also recognition of the importance of paragraph 80 of the Final Document of the first special session devoted to disarmament, which states that "in order to prevent an arms race in outer space, further measures should be taken and appropriate international negotiations held in accordance with the spirit of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and other Celestial Bodies". A preliminary consideration was given to a number of proposals and initiatives aimed at preventing an arms race in outer space and ensuring that its exploration and use will be carried out exclusively for peaceful purposes in the common interest and for the benefit of all mankind.

CONFERENCE ON DISARMAMENT

CD/851
CD/OS/WP.24
2 August 1988

ENGLISH
Original: SPANISH

VENEZUELA

Proposed amendment to the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies

Article IV of 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, should be amended as follows:

Insert in the first paragraph:

After the phrase "or any other kinds of weapons of mass destruction", the words "or any kind of space weapon or system of such space weapons".

Insert between the first and second paragraphs:

"The States Parties to the Treaty also undertake not to develop, produce, store or use space weapons.

"For the purposes of the preceding paragraph space weapons are understood to mean any offensive or defensive device, including its operational components, whatever the scientific principle on which its functioning is based:

"(a) Capable of destroying or damaging from its place of deployment in outer space an object situated in outer space, in the air, in water or on land;

"(b) Capable of destroying or damaging from its place of deployment in the air, in water or on land an object situated in outer space.

"The following are also space weapons: any offensive or defensive device, including its operational components, and any system of such devices, whatever the scientific principle on which its functioning is based, that is capable of intercepting, from outer space or from land, water or the atmosphere, ballistic projectiles during their flight."

The amendments to the Treaty should be complemented by a Protocol establishing appropriate verification machinery to ensure observance of the global ban on space weapons.

CONFERENCE ON DISARMAMENT

CD/870
12 September 1988

Original: ENGLISH

REPORT OF THE AD HOC COMMITTEE ON PREVENTION OF AN ARMS RACE IN OUTER SPACE

I. INTRODUCTION

1. At its 446th plenary meeting, on 8 March 1988, the Conference on Disarmament adopted the following decision:

> "In the exercise of its reponsibilities as the multilateral disarmament negotiating forum in accordance with paragraph 120 of the Final Document of the first special session of the General Assembly devoted to disarmament, the Conference on Disarmament decides to re-establish an Ad Hoc Committee under Item 5 of its agenda entitled 'Prevention of an arms race in outer space'.
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> The Conference requests the Ad Hoc Committee, in discharging that responsibility, to continue to examine, and to identify, through substantive and general consideration, issues relevant to the prevention of an arms race in outer space.
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> The Ad Hoc Committee in carrying out this work, will take into account all existing agreements, existing proposals and future initiatives as well as developments which have taken place since the establishment of the Ad Hoc Committee, in 1985.
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> The Ad Hoc Committee will report to the Conference on the progress of its work before the conclusion of the first part of its 1988 session, in view of the forthcoming third special session of the General Assembly devoted to disarmament. It will also report to the Conference before the conclusion of the second part of its 1988 session."

In that connection, the President of the Conference and various delegations made statements regarding the scope of the mandate. All those statements made possible the adoption of the mandate.

2. Pursuant to its mandate, the Ad Hoc Committee submitted to the Conference on Disarmament a special report covering the consideration of agenda item 5 during 1985, 1986, 1987 and the first part of the 1988 session. At its 462nd plenary meeting, on 29 April 1988, the Conference adopted the report of the Committee which is an integral part of the special report submitted by the Conference to the General Assembly at its third special session devoted to Disarmament (CD/834).

II. ORGANIZATION OF WORK AND DOCUMENTS

3. At its 446th plenary meeting, on 8 March 1988, the Conference on Disarmament appointed Ambassador Adolfo Taylhardat (Venezuela) as Chairman of the Ad Hoc Committee. Miss Aida Luisa Levin, Senior Political Affairs Officer, United Nations Department of Disarmament Affairs, continued to serve as the Committee's Secretary.

4. The Ad Hoc Committee held 17 meetings between 8 March and 7 September 1988.

5. At their request, the Conference on Disarmament decided to invite the representatives of the following States not members of the Conference to participate in the meetings of the Ad Hoc Committee: Austria, Denmark, Finland, Greece, Ireland, New Zealand, Norway, Portugal, Senegal, Spain, Switzerland, Turkey and Zimbabwe.

6. In addition to the documents of the previous sessions and those submitted during the first part of the 1988 session, 1/ the Ad Hoc Committee had before it the following new documents:

CD/851 Proposed amendment to the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, submitted by Venezuela (also issued as CD/OS/WP.24).

The Committee also had before it the following new working papers:

CD/OS/WP.23 Letter dated 23 May 1988 addressed to the Secretary-General of the Conference on Disarmament from the Permanent Representative of Canada, transmitting documents relating to the prevention of an arms race in outer space;

CD/OS/WP.24 Proposed amendment to the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, submitted by Venezuela (also issued as CD/851);

CD/OS/WP.25 Working paper entitled "Strengthening of State practice under the Convention on Registration of Objects Launched into Outer Space, to provide more timely and specific information concerning the function of satellites, including whether the satellite is fulfilling a civilian or military mission", submitted by Australia and Canada;

CD/OS/WP.26 Working paper entitled "Arms control and outer space. A retrospective review: 1982-1987", submitted by Canada;

CD/OS/WP.27 Working paper on the use of certain terms relating to arms control and outer space, submitted by Canada.

III. SUBSTANTIVE WORK DURING THE 1988 SESSION

7. Following an initial exchange of views and consultations held by the Chairman with Members of different groups, the Ad Hoc Committee, at its 3rd meeting on 22 March 1988, adopted the following programme of work for the 1988 session:

"1. Examination and identification of issues relevant to the prevention of an arms race in outer space;

2. Existing agreements relevant to the prevention of an arms race in outer space;

3. Existing proposals and future initiatives on the prevention of an arms race in outer space.

In carrying out its work, the Ad Hoc Committee will take into account developments which have taken place since the establishment of the Committee in 1985."

With regard to the organization of work, the Committee agreed that it would give equal treatment to the subjects covered by its mandate and specified in its programme of work. Accordingly, the Committee agreed to allocate the same number of meetings to each of those subjects, namely, issues relevant to the prevention of an arms race in outer space, existing agreements and existing proposals and future initiatives. It was noted that in accordance with rule 30 of the Rules of Procedure any member wishing to do so may discuss any subject relevant to the work of the Committee.

8. The work of the Ad Hoc Committee was governed by the mandate only.

9. The Ad Hoc Committee continued the consideration of the subjects covered by its mandate in the light of the positions and views previously set forth by delegations. 2/

10. In the course of the work, delegations discussed or referred to a number of issues relevant to the prevention of an arms race in outer space, such as: the determination of the scope and objectives of multilateral work under the agenda item, the status of outer space as the common heritage of mankind which should be used exclusively for peaceful purposes, the need to prevent an arms race in outer space, the absence, at present, of weapons in space, the identification of the functions performed by space objects, the identification of the threats confronting space objects, the relationship between the prevention of an arms race in outer space and arms limitation and disarmament measures in other areas, the relationship between bilateral and multilateral efforts to prevent an arms race in outer space, questions relating to verification and compliance and the need for information on how outer space is being used and on national space programmes of military significance. A working paper was submitted presenting a retrospective review of the evolution of some of the primary issues relevant to outer space during the period 1982-1987 (CD/OS/WP.26).

11. A group of Socialist States held also the view that in the period of growing sensitivity about the Earth's atmosphere, depletion of ozone layer, increasing fears about unintended climatic changes, any plans of testing and stationing of weapons in outer space for possible use, must take into account also their probable negative consequences for the Earth's delicate and still poorly understood atmospheric chemistry. These delegations believed that these questions required reflection in the work of the Ad Hoc Committee.

12. There was general recognition of the importance of the bilateral negotiations between the Union of Soviet Socialist Republics and the United States of America and it was stressed that bilateral and multilateral efforts were complementary. Many delegations emphasized that those negotiations did not diminish the urgency of multilateral negotiations and reaffirmed that, as provided for in General Assembly resolution 42/33, the Conference on Disarmament, as the single multilateral disarmament negotiating forum, had the primary role in the negotiation of a multilateral agreement or agreements, as appropriate, on the prevention of an arms race in outer space in all its aspects. They also stressed that the scope of the work of the Conference on Disarmament was global and larger than the scope of the bilateral negotiations. Some other delegations, while recognizing the need for the Conference to play a role with respect to problems relating to the prevention of an arms race in outer space, stressed that nothing should be done that would hinder the success of the bilateral negotiations. Furthermore, they believed that multilateral disarmament measures in this area could not be considered independently of developments at the bilateral level.

13. One delegation stated that outer space, as the common heritage of mankind, should be used only for peaceful purposes and in the interests of human welfare. It considered that to halt the arms race in outer space has become a new priority item in the field of disarmament. It believed that the development of space weaponry has caused a qualitative escalation in the arms race, which constitutes a new threat to international security and stability. It considered that the prohibition of space weaponry is an effective way to halt the arms race in outer space. It reiterated that the two major space powers, which possess the greatest space capacity and are engaged in developing space weapons, should commit themselves not to test, develop, produce and deploy space weapons and to destroy all their existing space weapons and on such a basis, an international agreement on the complete prohibition and destruction of space weapons should be concluded. It was of the view that at the present stage, work in the Conference on Disarmament should centre on the solution of the problems that were directly related to preventing the "weaponization" of outer space.

14. Many delegations were of the view that as a result of the work carried out in previous years, at the 1988 session, attention should be devoted to proposals for measures to prevent an arms race in outer space. They believed that the various ideas and suggestions that had been advanced provided sufficient points of convergence to move forward in that area. Accordingly, many delegations held that the Ad Hoc Committee should proceed with a more structured and goal-oriented examination of the subject. In this context, they welcomed the informal paper of the Chairman, dated 23 August 1988, containing a list of existing proposals relevant to the prevention of an arms race in outer space, as a useful basis for such a work. Some other delegations considered that, while the work of the Committee since its establishment had

contributed to a better understanding of questions relating to the prevention of an arms race in outer space, there were fundamental divergences with respect to all the subjects covered by the mandate. In their view, therefore, it was necessary to continue the examination and identification of issues relevant to the prevention of an arms race in outer space with a view to reaching a common understanding and definition of the scope and objectives of the work of the Committee. Some delegations also noted that there was no record of an informal paper of the Chairman, dated 23 August 1988. These delegations insisted that such a paper did not exist. Many delegations recalled that there were precedents in the Conference of informal documents submitted by presiding officers which have contributed to the consideration of the issues under discussion and have been referred to in relevant reports. Therefore, the fact that some delegations refused to acknowledge the existence of one such document does not diminish its usefulness for the work of the Committee.

15. A number of delegations considered that the participation of experts would contribute to the work of the Ad Hoc Committee and mentioned a number of areas where it would be desirable to have technical expertise and guidance, among them, problems of definition, questions relating to ASATs and the protection of space objects, verification and data exchanges. Some delegations favoured the establishment of a group of governmental experts and various possible mandates for such a group were suggested. Other delegations, sharing the view that experts made a valuable contribution to the work of the Committee, believed that such contribution could be made through their inclusion in delegations. In their opinion, however, the work of the Committee had not yet reached the stage where the establishment of a group of experts would be useful.

16. One delegation made a detailed presentation at the expert level of the basic principles of operation of observation satellites and the fundamental techniques of interpretation of satellites data. This presentation was highly appreciated.

17. One delegation belonging to the group of Socialist States had prepared with the help of experts and submitted for consideration by the Ad Hoc Committee a systematic analysis of major proposals, submitted by delegations of various countries in the Ad Hoc Committee on Prevention of an Arms Race in Outer Space. This set of exposés referred to the problems of ensuring immunity of satellites; prohibition of ASAT weapons; verification and monitoring issues; as well as "partial measures". That delegation pointed out that it sought to give an overall picture of submitted proposals and to identify their common points so as to ensure the best preparation possible for the future multilateral negotiations within the framework of the Conference on Disarmament on the subject of the prevention of an arms race in outer space. It held that comparative analysis of such major proposals, views and approaches of delegations made it possible to identify general approaches to solving the problems facing the Conference. This delegation stated that the Committee had accumulated a wealth of ideas and proposals and that a good basis had been established for concrete and goal-oriented work. It noted that delegations belonging to all groups of countries had presented such proposals and ideas. Thanks to the discussions it was possible to reveal the positive potential of every introduced proposal. In its view, should the proposals, that had already been introduced, be put into effect, taken as a whole they

were capable of accomplishing such a complex task as the prevention of an arms race in outer space. It was convinced that the in-depth examination of problem issues, collective experience and exchange of views would help to find common solutions leading to the elaboration of multilateral agreements. The delegations of other Socialist States expressed the view that these presentations created a good basis for practical and concrete work of the Committee.

18. One other delegation noted, however, that basic misunderstandings about the subjects in items 1 and 2 of the Ad Hoc Committee's work programme continue to exist. This delegation noted with concern that questionable definitions presented in the past during the work of the Committee have been inaccurate and non-representative. This delegation stated, furthermore, that much of the discussion on item 3 of the Committee's work programme seemed poorly prepared and reflected only rudimentary efforts to press into that area without having accumulated sufficient background and understanding.

19. Some delegations noted the 1987 UNIDIR study entitled "Disarmament: Problems Related To Outer Space", which had been prepared with the assistance of a group of qualified experts, representing various schools of thought, and submitted to the General Assembly, which noted that study in resolution 42/33. These delegations favoured extensive use of the findings of that study in the deliberations of the Ad Hoc Committee.

20. Many delegations recognized that the outer space legal régime played and continues to play a significant role for the prevention of an arms race in outer space. It is for this reason that many delegations stressed the need to consolidate and reinforce that régime and enhance its effectiveness and the importance of strict compliance with existing agreements, both bilateral and multilateral.

21. Many delegations noted the USSR/US statement at the December 1987 summit that their bilateral delegations in Geneva be instructed "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". Delegations of Socialist States also noted that this statement was reaffirmed in the June 1988 summit.

22. One delegation pointed out that for several years one major space power has had serious concerns about non-compliance of one of the parties to the ABM Treaty. It noted that in particular, the construction of a large phased-array radar (LPAR) near Krasnoyarsk, because of its location and orientation, constitutes a significant violation of a central element of the ABM Treaty. It continued that although the latter party to the ABM Treaty has sought to convey the impression that it is addressing these concerns, it has not taken the necessary actions to resolve them. This delegation further stated that the existence of the Krasnoyarsk radar calls into question the continued viability of the ABM Treaty. It noted that unless this violation is resolved, one major space power will be forced to consider the exercise of its rights under international law to take appropriate and proportionate responses. It also noted that the radars at Thule and Fylingdales Moor are not violations of the ABM Treaty. It further stated that these two radar installations already existed when the ABM Treaty was signed in 1972 and that modernization of these installations is allowed by the Treaty.

23. Commenting on the issue, another delegation stressed that this matter should be dealt with on a bilateral basis and that the ABM Treaty provided for a mechanism of the Standing Consultative Commission (SCC) to consider the concerns raised by the sides. As regards the radar under construction near Krasnoyarsk, it reiterated that the radar was designed for tracking space objects and was not subject to the limitations of the ABM Treaty. As a good will gesture this major space power expressed its willingness to dismantle the equipment of the radar, provided agreement was reached on compliance with the ABM Treaty, as signed in 1972. This major space power in its turn expressed concern regarding compliance of the other side with the provisions of the ABM Treaty, resulting from the deployment of the large phased-array radar in Thule and the construction of a similar radar in Fylingdales Moor.

24. Various delegations, while recognizing that the legal régime placed some limitations on certain weapons and military activities in outer space, emphasized that existing legal instruments left open the possibility of the introduction of weapons in space, other than nuclear weapons or other weapons of mass destruction, and, consequently, were not sufficient to prevent an arms race in that environment, particularly in view of the rapid pace of progress in space science and technology as well as ongoing military space programmes. They believed that there was an urgent need to consolidate, reinforce, and develop that régime and enhance its effectiveness with a view to the effective prevention of an arms race in outer space.

25. Some other delegations stressed that there was already a body of international law governing activities in outer space which provided a considerable measure of prohibition and protection. They believed it was important to have a full understanding of the scope of the existing legal régime, of the inter-relationship of its provisions and of aspects related to adherence, compliance and enforcement. They also believed that the examination of that régime in the Ad Hoc Committee confirmed that there continued to be a need to arrive at a common understanding of what were permitted and prohibited uses of outer space. In this regard, an analysis of some terminological problems that had to be dealt with was presented to the Committee (CD/OS/WP.27).

26. In addition to sharing the views reflected in the above paragraph, one delegation reiterated that the existing legal régime for arms control in outer space was equitable, balanced and extensive and had been far more successful in preventing an arms race than any comparable régime on Earth. In its opinion, any problems associated with the existing legal régime would be inherent in any legal régime, no matter how developed, since a legal régime by itself is not sufficient to prevent an arms race in outer space but also requires compliance, enforcement and participation. Beyond that, this delegation believed that many of the proposals that were being discussed were based on an inadequate appreciation or flawed understanding of the existing legal régime. It considered, for instance, that proposals for banning the use of force in outer space, immunizing satellites from attack, immunizing satellite ground stations from attack and banning anti-satellite weapons were either redundant or perhaps even prejudicial to the legal controls that were already in place.

27. Some delegations stated that further specific measures aimed at preventing an arms race in outer space will not detract from the importance of the existing legal régime just as certain arms control measures currently in force did not do so in the terrestrial environment. It was also pointed out that the fact that an arms race has not yet materialized in outer space cannot be attributed to the adequacy and sufficiency of the existing legal régime.

28. Some delegations, stressing the urgency of forestalling the introduction of weapons in space, discussed comprehensive proposals for the prevention of an arms race in outer space, such as those calling for a treaty prohibiting the use of force in outer space or from space against the Earth, a treaty prohibiting the stationing of weapons of any kind in outer space and amendments to the 1967 Outer Space Treaty. In this context, some of these delegations considered that the various definitions of space weapons that had been put forward provided a good basis for working towards a comprehensive prohibition of weapons that were not yet outlawed under the existing legal régime. They also suggested that with the assistance of experts it should be possible to formulate a definition that would not only describe space weapons but also list their components. A proposal was submitted (CD/851) to amend Article IV of the Outer Space Treaty so as to make its prohibition applicable to any kind of space weapon and to include a prohibition on the development, production, storage and use of space weapons. That proposal also provided for a definition of space weapons. It was envisaged that those amendments to the Treaty would be complemented by a protocol establishing appropriate verification machinery to ensure compliance with the complete prohibition of space weapons. Another suggestion called for an amendment to the Outer Space Treaty to broaden its scope to cover any type of weapon, combined with the multilateralization of the ABM Treaty and a ban on anti-satellite systems other than space-based systems.

29. Some other delegations were not in favour of such approaches on the grounds that they did not give an accurate picture of all the threats confronting space objects and overlooked other significant factors of the military and strategic situation relevant to outer space. These delegations also held that proposals should be examined bearing in mind questions relating to compliance, verifiability, practicability and utility.

30. Some delegations, noting that existing legal restraints did not preclude the emergence of non-nuclear ASAT weapons, stressed the importance of a ban or limitations on anti-satellite weapons. A number of issues that would have to be addressed in the consideration of such a ban or limitations were identified - for example, scope of the ban, definition of ASAT weapons, the problem of dual-purpose spacecraft, means of verification. In that connection, some delegations considered that the participation of experts would assist the Ad Hoc Committee in clarifying the problems involved in those issues. Various proposals and ideas were discussed, such as: a general treaty supplemented by specific protocols applicable to different categories of satellites; prohibition of systems capable of attacking satellites in high orbit; prohibition of dedicated anti-satellite systems; a treaty that would ban the use of force against any space object, prohibit the deliberate destruction, damage or interference with the normal functioning of space objects, proscribe the development, production or deployment of ASAT weapons and provide for the destruction under international control of any existing ASAT weapons and to prevent the utilization and modification of any space

object as well as manned spacecraft for anti-satellite purposes; a ban on the testing and/or use of ASAT weapons, pending the achievement of a comprehensive ban on the development, testing, deployment and use of such weapons, on Earth, in the atmosphere or in outer space, the destruction of all existing ASAT weapons and the prohibition of the development, testing and deployment of space-based ballistic missile defence systems. Some delegations, supporting a ban on ASAT weapons, emphasized that it should protect only satellites performing peaceful functions and not those engaged in activities that threatened the security of other States or endangered the peaceful activities of other States in outer space. An ASAT ban, therefore, presupposed an agreed definition of peaceful functions and a verification system aimed at determining whether objects launched into space fulfilled that criterion. Some other delegations were of the view that the issue of defining peaceful functions would have to be resolved in the context of negotiations on an ASAT ban.

31. Some delegations considered that there were inherent difficulties in proposals for a ban or limitations on ASAT weapons and referred, in particular, to the diversity and characteristics of the potential threats to space objects, the existence of weapon systems that had an ASAT capability, the limitations of such notions as "intention" or "dedicated" for purposes of defining and prohibiting ASATs, problems of verifiability and the close link between questions relating to ASATs and matters under consideration in the bilateral negotiations. Beyond that, one delegation also elaborated on the various legal restraints that the existing legal régime already imposed on the nature, deployment and use of ASATs.

32. Other delegations gave examples of dedicated ASAT systems that have been tested despite the existing legal régime and reaffirmed the need for a comprehensive ASAT ban which could effectively close this loophole.

33. Various delegations were of the view that consideration should be given to the question of the protection of satellites and a number of proposals and ideas were examined. Some delegations considered that attempts to establish a protection régime based on a categorization of satellites would give rise to many difficulties and advocated the granting of immunity to all space objects without exception, it being understood that space weapons would be subject to an unconditional ban. Other delegations were of the view that certain distinctions should be made for purposes of immunizing satellites and various possibilities were mentioned in terms of their functions, purposes and orbit. In this connection, some delegations held that a protection régime called for improvements in the system of registration of space objects to permit the identification of the nature and missions of protected space objects. Some delegations stressed in particular that immunity should not be extended to satellites that perform military missions. One delegation suggested a step-by-step approach to the protection of satellites, including establishing within the context of existing international law and established international practice, which satellites perform functions that are in the common interest, what these common interests are and how these satellites contribute to them, after which it would be necessary to identify which satellites should be protected followed by identification of an appropriate protection régime for such satellites. In this regard this delegation recalled its proposal concerning measures to protect from attack all satellites - and their associated ground stations - that contribute to strategic stability and to verification of arms control arrangements.

34. Various other possible measures relating to the security of satellites were mentioned, such as multilateralizing the immunity provided for in certain bilateral agreements to satellites that serve as national technical means of verification, a "rules-of-the-road" agreement, the reaffirmation and development of the principle of non-interference with peaceful space activities and the elaboration of a code of conduct in outer space to prevent the risks and fears that could arise from certain manoeuvres of space objects.

35. One delegation noted that international legal instruments already existed to ensure the immunity of satellites. This delegation stated that these instruments prohibit the use of force and the threat of the use of force against satellites except in cases of self-defence. This delegation noted, however, that these instruments are not intended to compromise the inherent right of sovereign States to take adequate measures to protect themselves in the event of the threat or use of force.

36. Many delegations noted that general provisions on the prohibition of the use or threat of use of force have unfortunately not proved to be adequately binding in the past. This has necessitated the growing need for negotiation of specific disarmament agreements, for example, those relating to chemical and biological weapons, inhumane weapons, etc.

37. One delegation recalled its proposal for the conclusion of a multilateral agreement to supplement the 1972 ABM Treaty (CD/708).

38. Some delegations highlighted the contribution that confidence-building measures could make to the objective of preventing an arms race in outer space and stressed in that regard the importance of transparency in the activities of States and of accurate information on how outer space was being used. It was pointed out that to date not a single one of the space launches registered had been described as having military purposes, although well over half of space objects performed military functions. The view was expressed by another delegation that there was a need for expert examination of the parameters on which information should be provided and it was suggested that a group of experts be set up for that purpose. Some other delegations believed that the strengthening of the Registration Convention would be a valuable confidence-building measure, and they discussed various ways and means of improving the system of notification established thereunder with a view to assuring the availability of timely and adequate information on the nature and purposes of space activities. A proposal was submitted (CD/OS/WP.25), suggesting that an understanding be reached among States parties to the Convention that in discharging their reporting responsibilities they would provide timely, accurate information on the functions of a satellite, including whether it fulfilled a civilian or military mission or both. This same proposal included the suggestion that States which have launched space objects, but are not party to the Convention should join the Convention or agree to submit the same information under the terms of General Assembly resolution 1721 (XVI). A number of delegations also noted that the proposed course of action submitted in CD/OS/WP.25 would enhance confidence through the provision of more specific information regarding objects launched into space as well as through increased adherence and better compliance with an existing legal instrument. It was believed that although the Convention had not been negotiated as an agreement in the field of arms limitation and disarmament, it offered possibilities that could be used to advantage in this field. Another

view was that consideration be given to procedures to verify the accuracy of information on space objects, including verification of their nature at the launching sites. Some delegations considered that questions concerning the Registration Convention fell within the competence of the Committee on the Peaceful Uses of Outer Space. In addition, one delegation noted that the Registration Convention had been negotiated to establish an international register of space objects to give practical effect to the Convention on International Liability for Damage caused by Space Objects and held that the introduction of changes in the former entailed a high probability of introducing confusion into the latter. Some delegations pointed out that the Registration Convention, as mentioned in its preamble, has to be seen in the context of developing international law governing the exploration and use of outer space and therefore has direct relevance to the work of the Ad Hoc Committee. Some delegations suggested that besides data on objects launched into outer space, information should also be provided, in the interest of greater transparency, on ballistic missile defence research currently being carried out by some countries.

39. Referring to its proposal concerning declarations that weapons have not been deployed in outer space on a permanent basis, one delegation explained that the initiative aimed at generating a climate of confidence in the field of the prevention of an arms race in outer space. Some delegations supported the proposal and recalled that the usefulness of unilateral declarations as confidence-building measures had been acknowledged in various fields of arms limitation and disarmament. Supporting this proposal, one delegation belonging to the group of Socialist States recalled that it had stated that it would not be the first to place weapons in outer space.

40. Another delegation, commenting on the problems that in its view this proposal raised, noted that there were many kinds of weapon systems that could be used against space objects and that not all of them need necessarily be placed in space. It pointed out that those were the kinds of issues that were under discussion in the bilateral negotiations.

41. Delegations generally recognized the importance of verification in the context of measures to prevent an arms race in outer space. Some delegations considered that it should be possible to assure verification of compliance with agreements relating to the prevention of an arms race in outer space through a combination of national technical means and international procedures. It was also noted that the Outer Space Treaty contained some verification provisions. A number of delegations were of the view that verification functions should be entrusted to an international body to provide the international community with an independent capability to verify compliance. Reference was made to the proposed international satellite monitoring agency and to international co-operation for the use of Earth monitoring satellites for the verification of arms limitation and disarmament agreements. Mention was also made of the possibilities offered by the PAXSAT concept - a research programme on the feasibility of the application of remote-sensing techniques to the verification of multilateral arms limitation and disarmament agreements and covering both space-to-space and space-to-ground remote-sensing.

42. Sharing these views, delegations of a group of Socialist States underlined that the non-deployment of weapons in space should be effectively verified. They supported the creation of a world space organization which would, inter alia, perform verification functions. They were also convinced of the necessity to establish, under the auspices of the United Nations, a mechanism for wide-ranging verification of various disarmament agreements, such as an international verification agency(IVA). When established, the International Verification Agency would co-ordinate and verify compliance with agreements and treaties on specific aspects of the limitation, reduction and elimination of armaments. It could also be entrusted with the task of verifying compliance with agreements on the reduction of international tension. Another function of the agency could be to monitor the military situation in regions of conflict, with a view to taking measures to prevent military conflicts. These delegations were convinced that as applied to space, verification was called upon to ensure a resolution of two interrelated, major problems: first, to ensure a non-deployment of any weapons in space, i.e. to preserve outer space free of arms; second, to help in detecting breaches of present and future agreements aimed at preventing an arms race in space. For the purposes of solving the first problem - preventing deployment of any arms in space - the Ad Hoc Committee had the proposal entitled "Establishment of an international system of verification of the non-deployment of weapons of any kind in outer space" (CD/817). The main purpose of such a system would be to determine that objects to be launched into and stationed in space were not weapons and were not equipped with weapons of any kind. Its central element would be an international space inspectorate upon which the States parties to the agreement would confer the right of access, for inspection purposes, to any objects intended to be launched into and stationed in outer space. In order to ensure a complete ban on space weapons, measures of verification with the aid of the international space inspectorate should include, inter alia, advance submission by the receiving State to the representatives of the international space inspectorate of information on every forthcoming launch, including the date and time of launch, the type of launch vehicle, the parameters of the orbit and general information on the space object to be launched; the permanent presence of inspection teams at all sites for launching space objects in order to check all such objects irrespective of the vector; and the verification of undeclared launches from undeclared launching pads by means of extraordinary on-site inspections without right of refusal. They were convinced that on-site inspection carried out immediately prior to launchings was the most simple and effective way to be sure that objects placed into space did not carry weapons of any kind. Despite the very complex nature of space technology the verification of the presence or absence of means of warfare on a space object seemed to be relatively simple. So far, launching sites in the world were not so many, a space launch complex was something that could not be hidden, and the permanent presence of international inspectors at these launching sites would be a reliable guarantee that objects launched into space were not weapons and did not carry weapons of any kind. All States conducting space activities would be put in an absolutely equal situation while the permanent control on the part of international inspectors would guarantee the reliability of verification. Thus, the problem of preventing arms in outer space could be considered on the basis of the proposal on the international space inspectorate. The problem of a different kind, related to the previous one - detecting cases of arms already put into space - could be tackled on the basis of other proposals. The PAXSAT concept seemed to be worthy of attention.

These delegations believed that the establishment of an international space monitoring agency (ISMA), which might in future become a component of an international verification agency, could provide international community with authentic and diverse information on compliance with multilateral treaties and agreements in the area of disarmament and reducing international tensions as well as monitoring military situation in regions of conflict. Seeking to provide this idea with a practical basis delegations of Socialist States proposed to start negotiations on the Conference on Disarmament on the establishment of an international satellite monitoring agency, including the programme and material and technical basis for it.

43. Some delegations maintained that issues relating to verification and compliance needed to be considered in greater depth. They noted that many elements of the existing legal régime applicable to outer space were relatively simple and stated that the more complicated any arms control agreement for outer space was, the more difficult it would be to verify compliance with it. They believed that verification and compliance issues were particularly sensitive and complex in this area because, on the one hand, vital national security interests were at stake and, on the other hand, the vastness of space and the possibilities of concealment on Earth posed special problems. With respect to the proposal for the establishment of a world space organization, some delegations were of the opinion that its consideration was beyond the competence of the Conference on Disarmament. They also foresaw substantial legal, technical, political and organizational difficulties associated with an international verification inspectorate. In this regard, they believed that it should be kept in mind that virtually any space object, if controlled and manipulated properly, is capable of serving as a weapon. They stated that this basic fact plus many legal, technical, definitional, organizational and political obstacles bar the way to a successful international verification inspectorate.

44. One delegation stated that any type of international verification inspectorate is impractical because treaties already in place adequately regulate military activities in space, while also permitting the conduct of important national security and self-defence activities such as early warning of attack. It noted that the ABM Treaty, the Outer Space Treaty, and the Registration Convention constituted significant elements of this Treaty régime. This delegation believed, moreover, that proposals of this type could be more destabilizing than stabilizing because they could circumvent the development or compromise the effectiveness of strategic defence capabilities that threaten no one. It noted the possibility that greater reliance on effective defences against ballistic missiles could, in the future, provide a safer, more stable basis for deterrence of war than the sole reliance on the threat of nuclear retaliation. This delegation stated that to provide a fully effective layered defence, some elements of a ballistic missile defence system may need to be based in space. This delegation stated that the programme of research, development and testing related to this layered defence system is in full compliance with the 1972 ABM Treaty.

45. Commenting on the issue, another delegation stated that Article V (1) of the ABM Treaty explicitly prohibits the development, testing or deployment of ABM systems, which are, inter alia, space-based or include space-based elements. The same delegation emphasized that its State had been observing fully and precisely the ABM Treaty.

46. Some delegations noted with satisfaction that at the 1988 session the Ad Hoc Committee gave detailed consideration to concrete proposals for measures aimed at the prevention of an arms race in outer space. In their opinion, the examination of specific proposals had served to identify areas of possible convergence of views and thus provided a good basis for practical work on measures to prevent an arms race in outer space. Recognizing the complexity of the subjects under consideration and the need for further analysis, they held that relevant issues, including those concerning the legal régime applicable to outer space, could be addressed in the context of the consideration of specific proposals. They believed that the work of the Committee should continue in that direction. Some other delegations were of the view that it was necessary to continue the examination of issues relevant to the prevention of an arms race in outer space that had not been sufficiently explored. They believed that much more detailed examination had to be done before it would be possible to undertake further activities. They considered that given the divergence of views on substantive and political issues, the broad scope of individual topics and the highly technical nature of the subject, the Committee had carried out work which contributed to a better understanding of the subject, but that much remained to be accomplished within the terms of the current mandate and programme of work. They also noted that much of the discussions held on proposals clearly showed the persistence of radically different approaches to the issues and that consensus did not exist on them. Consequently, the Committee needed to continue to study all the subjects covered by the mandate and the programme of work in order to establish a common body of knowledge and understanding, and common definitions of the scope and specific objectives of multilateral efforts for the prevention of an arms race in outer space.

47. Many delegations, while recognizing the importance of substantive consideration of relevant issues, emphasized that such consideration should be an integral part of the multilateral process of elaborating concrete measures aimed at the prevention of an arms race in outer space and that it could be done in the context of considering specific proposals. They reaffirmed that the objectives of multilateral efforts in this field are clearly set out in the Final Document of the first special session of the General Assembly devoted to disarmament. They also recalled the relevant resolutions adopted by the General Assembly. In this context, these delegations stressed the indispensable role of the Conference on Disarmament as the single multilateral negotiating body on disarmament and the inscription of item 5 on its agenda. Delegations of Socialist States shared the views expressed in this paragraph.

IV. CONCLUSIONS

48. There was general recognition in the Ad Hoc Committee of the importance and urgency of preventing an arms race in outer space and readiness to contribute to that common objective. The work carried out by the Committee since its establishment contributed to the accomplishment of its task. The Committee advanced and developed further the examination and identification of various issues relevant to the prevention of an arms race in outer space. The discussions held contributed to a better understanding of a number of problems and to a clearer perception of the various positions. It was recognized that the legal régime applicable to outer space by itself does not guarantee the prevention of an arms race in outer space. There was recognition of the significant role that the legal régime applicable to outer space plays in the

prevention of an arms race in that environment and of the need to consolidate and reinforce that régime and enhance its effectiveness and of the importance of strict compliance with existing agreements, both bilateral and multilateral. In the course of the deliberations, the common interest of mankind in the exploration and use of outer space for peaceful purposes was acknowledged. In this context, there was also recognition of the importance of paragraph 80 of the Final Document of the first special session devoted to disarmament, which states that "in order to prevent an arms race in outer space, further measures should be taken and appropriate international negotiations held in accordance with the spirit of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and other Celestial Bodies". A preliminary consideration was given to a number of proposals and initiatives aimed at preventing an arms race in outer space and ensuring that its exploration and use will be carried out exclusively for peaceful purposes in the common interest and for the benefit of all mankind.

49. It was agreed that no effort should be spared to assure that substantive work on this agenda item will continue at the next session of the Conference. It was recommended that the Conference on Disarmament re-establish the Ad Hoc Committee on the Prevention of an Arms Race in Outer Space with an adequate mandate at the beginning of the 1989 session, taking into account all relevant factors, including the work of the Committee since 1985.

Notes

1/ The list of documents may be found in the 1985, 1986 and 1987 reports of the Ad Hoc Committee and in the special report submitted to the General Assembly at its third special session devoted to disarmament (CD/642, CD/732, CD/787 and CD/834, respectively).

2/ Those positions and views are reflected in the annual reports of the Ad Hoc Committee and in the special report submitted to the third special session of the General Assembly devoted to disarmament.

CONFERENCE ON DISARMAMENT

CD/898
9 March 1989

Original: ENGLISH

Mandate for an Ad hoc Committee under item 5 of the agenda of the Conference on Disarmament entitled "Prevention of an Arms Race in Outer Space"

(Adopted at the 493rd plenary meeting on 9 March 1989)

In the exercise of its responsibilities as the multilateral disarmament negotiating forum in accordance with paragraph 120 of the Final Document of the First Special Session of the General Assembly devoted to disarmament, the Conference on Disarmament decides to re-establish an Ad Hoc Committee under item 5 of its agenda entitled "Prevention of an arms race in outer space".

The Conference requests the Ad Hoc Committee, in discharging that responsibility, to continue to examine, and to identify, through substantive and general consideration, issues relevant to the prevention of an arms race in outer space.

The Ad Hoc Committee, in carrying out this work, will take into account all existing agreements, existing proposals and future initiatives as well as developments which have taken place since the establishment of the Ad Hoc Committee, in 1985, and report on the progress of its work to the Conference on Disarmament before the end of its 1989 Session.

GE.89-60408/2232A

CONFERENCE ON DISARMAMENT

CD/905
CD/OS/WP.28
21 March 1989

ENGLISH
Original: RUSSIAN

LETTER DATED 21 MARCH 1989 FROM THE PERMANENT REPRESENTATIVE OF THE MONGOLIAN PEOPLE'S REPUBLIC ADDRESSED TO THE SECRETARY-GENERAL OF THE CONFERENCE ON DISARMAMENT TRANSMITTING A WORKING PAPER ENTITLED "REVIEW OF PROPOSALS AND INITIATIVES OF THE STATES MEMBERS OF THE CONFERENCE ON DISARMAMENT UNDER AGENDA ITEM 5, 'PREVENTION OF AN ARMS RACE IN OUTER SPACE'"

I have the honour to transmit herewith a working paper entitled "Review of proposals and initiatives of the States members of the Conference on Disarmament under agenda item 5, 'Prevention of an arms race in outer space'".

I should be grateful if you would arrange for the distribution of this working paper as an official document of the Conference on Disarmament and the Ad Hoc Committee on Prevention of an Arms Race in Outer Space.

(Signed) L. BAYART
Ambassador

GE.89-60534/0414B

MONGOLIA

Working paper

Review of proposals and initiatives by States members of the Conference on Disarmament under agenda item 5, "Prevention of an arms race in outer space"

Contents

		Page
I.	Introduction	1
II.	Comprehensive proposals	3
	Amendment to Article IV of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies	3
	Treaty on the prohibition of the stationing of weapons of any kind in outer space	5
	Treaty on the prohibition of the use of force in outer space and from space against the Earth	6
III.	Proposals relevant to specific aspects of the problem of preventing an arms race in outer space	8
	1. Ensuring the immunity of artificial Earth satellites .	8
	2. Banning of anti-satellite weapons	11
	Total ban on anti-satellite weapons	11
	Limitation of anti-satellite weapons	13
	Banning of anti-satellite weapons in combination with immunity for artificial Earth satellites	14
	Elimination of existing anti-satellite weapons	15

Contents (continued)

		Page
3.	Confidence-building measures, verification and control issues	16
	International space inspectorate (ISI)	16
	International satellite monitoring agency (ISMA)	18
	PAXSAT concept (PAXSAT "A" and PAXSAT "B" variants)	20
	"Rules of the road" - Code of conduct	21
	Proposal concerning declarations of non-deployment of weapons in outer space on a permanent basis	23
4.	Strengthening the 1975 Convention on Registration of Objects Launched into Outer Space	24
5.	Proposal relating to a multilateral instrument to supplement the ABM Treaty	25
IV.	Conclusion	26

I. INTRODUCTION

The prevention of an arms race in outer space is one of the highest priorities of disarmament negotiations.

In view of the importance and urgency of this task, the Conference on Disarmament, in the exercise of its responsibilities as the multilateral disarmament negotiating forum in accordance with paragraph 120 of the Final Document of the first special session of the General Assembly devoted to disarmament, decided in 1985 to establish an Ad hoc Committee under item 5 of its agenda, entitled "Prevention of an arms race in outer space", and requested it "to examine, as a first step at this stage, through substantive and general consideration, issues relevant to the prevention of an arms race in outer space".

At its 1986 session, the Conference re-established an Ad hoc Committee and requested it "... to continue to examine, and to identify, through substantive and general consideration, issues relevant to the prevention of an arms race in outer space ... [taking into account] all existing agreements, existing proposals and future initiatives as well as developments which have taken place since the establishment of the Ad hoc Committee, in 1985 ...". At the 1987 and 1988 sessions, the Committee was re-established with the same mandate as in 1986.

The work of the Ad hoc Committee has been governed by that mandate.

As from 1986 the Committee proceeded in accordance with the following programme, which contained minor changes as compared to the initial one adopted in 1985:

"1. Examination and identification of issues relevant to the prevention of an arms race in outer space;

2. Existing agreements relevant to the prevention of an arms race in outer space;

3. Existing proposals and future initiatives on the prevention of an arms race in outer space.

In carrying out its work, the Ad hoc Committee will take into account developments which have taken place since the establishment of the Committee in 1985."

In the course of the Ad hoc Committee's work in the period 1985-1988, delegations of the States members of the Conference on Disarmament drew attention to a number of issues, such as: the status of outer space as the

common heritage of mankind which should be used exclusively for peaceful purposes; the need to prevent an arms race in outer space; the absence at present of weapons in space; the identification of the dangers which threaten space objects; the relationship between the prevention of an amrs race in outer space and arms limitation and disarmament measures in other areas; the relationship between bilateral and multilateral efforts to prevent an arms race in outer space; the definition of space weapons; the improvement of work procedure; the necessity of strengthening the existing treaty régime; and questions relating to verification and compliance.

Many delegations, considering that the stage of examining issues relating to the prevention of an arms race in outer space had passed and that transition towards a stage of more practical work was required, declared themselves in favour of a mandate that would provide for negotiations.

Virtually all the States members of the Conference on Disarmament expressed their views on the idea of launching multilateral negotiations. By way of example, the following list will help to give an idea of delegations' positions:

Algeria (CD/PV.402, 2 April 1987); Argentina (CD/PV.465, 14 July 1988); Australia (CD/PV.440, 16 February 1988); Belgium (CD/PV.424, 23 July 1987, L. Tindemans, Minister for Foreign Affairs); Bulgaria (CD/PV.413, 16 June 1987); Burma (CD/PV.310, 23 April 1985); Canada (CD/PV.468, 26 July 1988); China (CD/PV.423, 21 July 1987); Czechoslovakia (CD/PV.410, 30 April 1987); Egypt (CD/PV.459, 21 April 1988; France (CD/PV.390, 19 February 1987); German Democratic Republic (CD/PV.454, 5 April 1988); Germany, Federal Republic of (Ad hoc Committee, 15 August 1988); Hungary (CD/PV.388, 12 February 1987); India (CD/PV.392, 26 February 1987); Indonesia (CD/PV.437, 4 February 1988, M. Kusuma-Atmadja, Minister for Foreign Affairs); Iran, Islamic Republic of (CD/PV.425, 28 July 1987, A. Velayati, Minister for Foreign Affairs); Italy (CD/PV.296, 5 March 1985); Japan (CD/PV.419, 7 July 1987); Kenya (CD/PV.477, 25 August 1988); Mexico (CD/PV.336, 4 February 1986); Mongolia (CD/PV.389, 17 February 1987); Morocco (CD/PV.451, 24 March 1988); Netherlands (CD/PV.418, 2 July 1987, H. Van den Broek, Minister for Foreign Affairs); Nigeria (CD/PV.391, 24 February 1987);

Pakistan (CD/PV.460, 26 April 1988); Poland (CD/PV.402, 2 April 1987); Romania (CD/PV.388, 12 February 1987); Sri Lanka (CD/PV.453, 31 March 1988); Sweden (CD/PV.463, 7 July 1988); USSR (CD/PV.385, 3 February 1987); United Kingdom (CD/PV.298, 12 March 1985); United States of America (CD/PV.478, 30 August 1988); Venezuela (CD/PV.397, 19 March 1987); Yugoslavia (CD/PV.438, 2 February 1988); and Zaire (CD/PV.409, 28 April 1987).

The delegation of Mongolia, in submitting this review, hopes that it will make an appropriate contribution to the efforts of the States members of the Conference on Disarmament directed towards substantive elaboration of the proposals and initiatives before the Ad hoc Committee, and will promote an in-depth analysis of the complex range of political, military, scientific, technical and international legal problems they involve, taking into account the necessity of examining ways of moving on to the holding in the Conference on Disarmament of multilateral negotiations aimed at preventing an arms race in outer space.

The official documents and records of the United Nations General Assembly and the Conference on Disarmament and statements made in the Ad hoc Committee were used in compiling this review, on the understanding that this review does not purport to be a complete presentation of the position of any delegation.

II. COMPREHENSIVE PROPOSALS

The Ad hoc Committee has before it comprehensive proposals submitted by Italy, Venezuela and the Soviet Union.

Amendment to Article IV of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies

On 9 September 1968, Italy proposed in the United Nations that article IV of the 1967 Treaty should be reviewed (doc. A/7221). On 1 February 1978, both in New York and Geneva, Italy proposed the adoption of further measures to prevent the extension of the arms race (working paper A/AC.187/97). This is reflected in paragraph 80 of the Programme of Action contained in the Final Document of the first special session of the United Nations General Assembly devoted to disarmament. On 26 March 1979, Italy distributed in the Committee on Disarmament, as an official document, an "Additional Protocol to 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, with a view to preventing an arms race in outer space" (CD/9).

A revision of the régime established by the 1967 Treaty was suggested in order to prohibit "the development and use of earth- or space-based systems designed to damage, destroy or interfere with the operations of other States' satellites". As suggested by Italy, the additional protocol to the 1967 Treaty would extend the prohibition contained in article IV of the Treaty explicitly to the launching and stationing in orbit or elsewhere in outer space of all weapons and not merely of nuclear weapons and weapons of mass destruction.

In 1987, the delegation of Venezuela again drew the attention of the Conference to the possibility of amending article IV of the 1967 Treaty (CD/398, 19 March 1987). On 2 August 1988, Ambassador A. Taylhardat submitted an official document, "Proposed amendment to the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies" (CD/851). The substance of the amendment is to broaden the prohibition in article IV of the Treaty on the stationing in orbit around the Earth of any objects carrying nuclear weapons by extending it to all kinds of weapon or weapons system as well as to introduce an obligation not to develop, produce, store or use such weapons. A definition of such "space weapons" was also suggested.

The delegations of Bulgaria (CD/PV.402, 2 April 1987), Egypt (CD/PV.459, 21 April 1988), Mongolia (CD/PV.400, 26 March 1987), Peru (CD/PV.428, 6 August 1987), Poland (CD/PV.402, 2 April 1987) and Zaire (CD/PV.461, 28 April 1988) supported the proposals of Italy and Venezuela.

At the same time, the delegation of the USSR stated that "the proposal by the delegation of Venezuela requires serious, expert study. The attractiveness of the proposal is that it offers an outwardly relatively uncomplicated way of filling a gap in the arrangements for preventing the intrusion of weapons into space. At the same time, we should not ignore the difficulties that will arise in amending an important international agreement that is in force. It would seem that development of this initiative could only take place if the Ad hoc Committee reached a consensus decision to that effect" (Ad hoc Committee, 16 August 1988).

Treaty on the prohibition of the stationing of weapons of any kind in outer space

In 1981, the Soviet Union, in a letter to the United Nations Secretary-General (A/36/192, 11 August 1981), proposed the conclusion of a treaty on the prohibition of the stationing of weapons of any kind in outer space. That proposal was submitted to the Committee on Disarmament for consideration at its 1982 session (CD/274, 7 April 1982). The substance of the proposal is to preclude all possibility of outer space becoming an arena for the arms race and an additional source of tension in relations between States.

The draft treaty provides for States parties to undertake not to place in orbit around the Earth objects carrying weapons of any kind, install such weapons on celestial bodies or station such weapons in outer space in any other manner, including on reusable manned space vehicles of an existing type or of other types which States parties may develop in the future. The document provides for each party to the future treaty to undertake not to assist, encourage or induce any State, group of States or international organization to engage in activities contrary to the goal of the non-stationing of weapons of any kind in outer space.

On 9 December 1981, the United Nations General Assembly adopted resolution 36/99 on "Conclusion of a treaty on the prohibition of the stationing of weapons of any kind in outer space", which referred to the need to take effective steps, by concluding an appropriate ... treaty, to prevent the spread of the arms race to outer space.

The draft treaty was supported by a number of delegations of socialist countries in the Conference on Disarmament, including Mongolia (CD/PV.170, 8 April 1982), Czechoslovakia (CD/PV.173, 21 April 1982), German Democratic Republic (CD/PV.183, 31 August 1982), and Hungary (CD/PV.184, 2 September 1982).

At the same time, a number of Western States voiced criticism regarding the draft treaty.

On 15 April 1982, the representative of the Federal Republic of Germany said that the Soviet draft did not appear to his delegation to be a suitable basis for negotiations within the Committee on Disarmament since:

> "... article 3 of the draft makes it legitimate to intercept space objects if these are not operated for peaceful purposes. However, the

determination and decision whether interception should take place lies with the interceptor alone, who would thus take on the role of a self-appointed space police. In the absence of firm criteria and of any objective determination of prerequisites for such a police role, this draft provision would seem to pave the way for misuse and serve, rather, as an incentive for the development and testing of additional anti-satellite systems. Secondly, the rules on verification contained in article IV appear to be insufficient, even in the light of other existing multilateral disarmament agreements and certainly in relation to the purposes of the draft treaty. In the view of my delegation it would be indispensable to have a substantially more detailed verification régime ..." (CD/PV.171).

On 20 April 1982, the representative of France also expressed concern that articles 1 and 3 of the draft treaty gave every State "freedom to destroy a space object which it decides of its own accord, without consultation or reference to any pre-established criterion, is carrying weapons ... Furthermore, the draft treaty makes provision only for national technical means of verification of compliance with its provisions" (CD/PV.172).

Treaty on the prohibition of the use of force in outer space and from space against the Earth

In 1983, the Soviet Union submitted for consideration by the United Nations General Assembly at its thirty-eighth session a draft treaty on the prohibition of the use of force in outer space and from space against the Earth (A/38/194, 23 August 1983). The draft was later referred to the 1984 session of the Conference on Disarmament (CD/476, 20 March 1984). As the Soviet delegation stressed, that draft took into account positions and views expressed by States members of the Conference on Disarmament in the discussion of the 1981 draft treaty on the prohibition of the stationing of weapons of any kind in outer space.

The draft treaty proposed that States parties should undertake:

"Not to test or deploy by placing in orbit around the Earth or stationing on celestial bodies or in any other manner any space-based weapons for the destruction of objects on the Earth, in the atmosphere or in outer space;

Not to utilize space objects in orbit around the Earth, on celestial bodies or stationed in outer space in any other manner as means to destroy any targets on the Earth, in the atmosphere or in outer space;

Not to destroy, damage, disturb the normal functioning or change the flight trajectory of space objects of other States;

Not to test or create new anti-satellite systems and to destroy any anti-satellite systems that they may already have;

Not to test or use manned spacecraft for military, including anti-satellite, purposes".

On 15 December 1983, the United Nations General Assembly adopted by an overwhelming majority resolution 38/70, "Prevention of an arms race in outer space", in which it urged that negotiations should begin in the Conference on Disarmament on the elaboration of agreements on the prevention of an arms race in outer space.

The proposal of the USSR attracted the interest of the delegation of Sweden (CD/PV.252, 22 March 1984), Czechoslovakia (CD/PV.253, 27 March 1984), Sri Lanka (CD/PV.254, 29 March 1984), Yugoslavia (CD/PV.255, 3 April 1984), and Poland (CD/PV.255, 3 April 1984).

At the same time, some delegations did not support the USSR proposal. Thus, the representative of the United Kingdom said that "the proposed comprehensive draft treaties presented by the Soviet delegation (CD/274 and CD/476) may also serve the negotiating position of the Soviet Union at their bilateral talks with the United States and have some propaganda value for public relations purposes, but they do not help us to carry out the mandate of this Committee" (Ad hoc Committee, 28 July 1987). The representative of the United States pointed out that "the existing legal régime both flatly bans all aggressive uses of force and permits a State to defend itself in the event of an armed attack. Consequently, the Soviet proposal to ban the use of force in outer space is either redundant to the existing legal régime or undercuts a significant portion of contemporary international law" (Ad hoc Committee, 30 June 1987).

On 3 February 1987, the USSR delegation reiterated its appeal for the States members of the Conference on Disarmament to:

"engage in businesslike consideration of the question of the prohibition of the use of force in outer space and from space against the Earth. ... The Conference could also consider the possibility of creating a system of international verification guaranteeing unswerving compliance with an agreement of the kind in question and, in particular, study the idea of an international inspectorate" (CD/PV.385).

III. PROPOSALS RELEVANT TO SPECIFIC ASPECTS OF THE PROBLEM OF PREVENTING AN ARMS RACE IN OUTER SPACE

Along with comprehensive proposals, proposals on specific issues also have an important role to play in resolving the problem of preventing an arms race in outer space.

1. Ensuring the immunity of artificial Earth satellites

Many delegations took interest in the important problem of ensuring the immunity of satellites. Thus, in addressing the Conference on Disarmament on 23 July 1987, L. Tindemans, the Belgian Minister for Foreign Affairs, said:

> "The problem of the protection of satellites [and] the elaboration of an appropriate ... international code of conduct are, in particular, the questions that the Conference on Disarmament could usefully debate at the multilateral level. They are independent of the ABM Treaty and the SDI, which, in our opinion, remain within the direct competence of the two super-Powers concerned" (CD/PV.424).

A similar approach was adopted on 4 February 1988, by P. Varkonyi, Minister for Foreign Affairs of Hungary, who said:

> "We would find it appropriate for the Committee to start devising a system that would guarantee the safety of satellites in orbit around the Earth, that is, the immunity necessary for their smooth operation" (CD/PV.437).

Views on the issue of immunity were also expressed by the delegations of Australia, the Federal Republic of Germany, France, Japan, Poland and the USSR.

On 2 April 1987, the representative of Poland said that immunity:

> "should be granted for all [satellites]. Sometimes the problem of the dual nature of military functions of satellite happens to be raised. It is argued that satellites that are deployed to verify arms control obligations could be simultaneously used for the gathering of sensitive military information. Yes, that can be the case. But to draw the precise line between different functions of satellites is almost impossible, and could be compared to the question of verification of what goes on in laboratory work on any subject. It is impossible to monitor what happens in a scientist's brain, and it is likewise impossible to know in advance in what manner a satellite computer has been programmed. Hence, the only way out is to grant immunity for all satellites" (CD/PV.402).

On 3 February 1987, the delegation of the USSR said, at the Conference on Disarmament, that "the Conference could consider the possibility of drawing up an international agreement guaranteeing immunity for artificial Earth satellites which do not carry weapons of any sort on board" (CD/PV.385).

On 7 July 1987, the representative of Japan said:

"Up to now, Japan has launched 36 satellites for such purposes as experimental launching, weather forecasting, communication and broadcasting. We are planning to launch about 10 more satellites by 1990. Japan thus has a keen interest in this issue of satellite protection. My delegation believes that space objects and their activities for peaceful purposes should not be attacked and should be duly protected" (CD/PV.419).

Document CD/375, submitted by the delegation of France on 14 April 1982 and entitled "Prevention of an arms race in outer space", said inter alia:

"The efforts of the international community as regards the problems of an arms race in outer space ought to be aimed at two things:

Not to allow outer space to become a base for military actions;

To protect space vehicles and in particular to ensure the immunity of satellites.

In fact the first objective, which concerns the technologies of the future, can be attained only if the second, which concerns innumerable vehicles at present in orbit, is ensured.

Hence the importance of ensuring the immunity of satellites."

The same document suggested that immunity should be "made more specific and should be broadened and extended beyond the scope of bilateral arrangements" to apply to all existing satellites, if they are "equipped" only with passive means of defence.

As a follow-up to its proposal, France suggested in 1984 that the United States and the USSR should extend to the satellites of third countries the provisions concerning the immunity of certain space objects on which they had reached bilateral agreement between themselves (CD/PV.263, 12 June 1984). The delegation of the United Kingdom also found that an interesting idea (CD/PV.331, 20 August 1985).

The representative of the Federal Republic of Germany, in his statement of 6 March 1986 (CD/PV.345), suggested that a special protection régime should be established for satellites to compensate for their vulnerability. He further suggested that such a régime could be conceived on, as it were,

two levels. "Hardware" limitations would be agreed in bilateral talks between the USSR and the United States, while the legal immunization of artificial Earth satellites would be dealt with under multilateral auspices. It was further suggested that a negotiated protection régime for satellites should have two dimensions: one agreement would deal with the legal immunity of satellites proper, while another would cover parallel confidence-building measures, possibly within the framework of a "rules of the road" agreement.

The delegation of the Federal Republic of Germany also advanced proposals relevant to the categorization of artificial Earth satellites when elaborating a legal régime for their protection. At the meeting of the Ad hoc Committee on 16 June 1987, the representative of the Federal Republic of Germany said that:

> "There is no controversy that satellites with verification, observation, communication and command functions are vital components of strategic stability; that satellites in most of these roles need a degree of protection ...; that there are other, combat-related, satellites which in their strictly military function would be subject to the law of war and could not profit from legal immunization."

The delegation of the Federal Republic of Germany also suggested that the consideration of the satellite-protection issue should be divided between the legal Sub-Committee of the United Nations Committee on the Peaceful Uses of Outer Space, which would be charged with civilian activities, and the Ad hoc Committee of the Conference on Disarmament, which would be entrusted with the military aspects of protection for satellites (CD/PV.345, 6 March 1986).

There was another proposal on ensuring the immunity of artificial Earth satellites. On 7 August 1984, W.D. Hayden, Minister for Foreign Affairs of Australia, suggested that the Conference on Disarmament should consider measures to protect from attack all satellites (and their associated ground stations) that contributed to strategic stability and to the verification of arms control agreements (CD/PV.279). On 29 July 1986, the representative of Australia suggested a step-by-step solution for the problem of artificial Earth satellite protection, including the question of which types of artificial Earth satellites should be protected, with the subsequent elaboration of an appropriate protection régime for such artificial Earth satellites (CD/PV.374).

The idea of immunizing artificial Earth satellites and adopting specific measures was also supported by the delegations of Argentina (CD/PV.423, 21 July 1987), Bulgaria (CD/PV.402, 2 April 1987), Canada (CD/PV.471, 17 July 1986), Czechoslovakia (CD/PV.371, 17 July 1986), German Democratic Republic (CD/PV.425, 28 July 1987, and CD/777, 31 July 1987), Mongolia (CD/PV.389, 17 February 1987, and CD/777, 31 July 1987), Netherlands (CD/PV.396, 12 March 1987), Pakistan (CD/PV.413, 16 July 1987), Sri Lanka (CD/PV.404, 9 April 1987), and Sweden (Ad hoc Committee, 22 March 1988).

At the same time, the representative of the United States of America stated, on 2 August 1988, that:

> "Those who have made these proposals are apparently unaware that international legal instruments already exist intended to ensure the immunity of satellites. These instruments prohibit the use of force against satellites except in cases of self-defence. Indeed, these international agreements go further than the proposals because they also prohibit the threat of the use of force against satellites. On the other hand, if these proposals mean to prohibit nations from taking actions against satellites in legitimate cases of self-defence, then they undermine the Outer Space Treaty, the United Nations Charter, and the inherent right of sovereign States to take adequate measures to protect themselves in the event of the threat or use of force" (Ad hoc Committee, 2 August 1988).

2. Banning anti-satellite weapons

The ideas expressed by delegations as to the banning of anti-satellite weapons could be grouped as follows:

Total ban on anti-satellite weapons

The idea of a total ban on anti-satellite weapons enjoys the support of quite a number of proponents.

Views on the issue of a total ban on anti-satellite weapons were expressed by the delegations of China, the Federal Republic of Germany, India and Sweden.

On 21 March 1985, the representative of Sweden stated that:

> "The main task of the Conference ... should be to aim at achieving a total ban on ASAT weapons. That implies a ban on development, testing, production and deployment as well as on use of such weapons" (CD/PV.301).

The representatives of the Federal Republic of Germany, in turn, in their statements on this issue on 6 March 1986 (CD/PV.345) and in the meeting of the Ad hoc Committee on 16 June 1987, pointed out that their delegation proceeded from the fact that:

> "a comprehensive ASAT-ban would have to include almost all means technically able to hit, damage, destroy or seriously impair satellites in their assigned function by kinetic, explosive, electronic and thermodynamic effects. That would involve inter alia intercontinental ballastic missiles, as well as satellites themselves which could without high cost be guided to collision with other satellites in their orbit".

On 23 April 1987, K. Natwar Singh, Minister for Foreign Affairs of India, said:

> "In the area of preventing an arms race in outer space, priority should be accorded to halting the development of anti-satellite weapons, dismantling existing systems, prohibiting the introduction of new weapon systems in outer space and ensuring that the existing treaties safeguarding the peaceful uses of outer space, as well as the 1972 ABM Treaty, are fully honoured and extended as required in the light of new technological advances" (CD/PV.408).

The same year, the delegation of India proposed the elaboration of a treaty banning development, testing and deployment of all anti-satellite weapons as well as eliminating existing systems of such weapons. The treaty should be accompanied by specific protocols concerning different categories of space objects - those in near-Earth orbits, those in high-Earth orbits and those in geosynchronous orbits (CD/PV.423, 21 July 1987).

The delegation of China held the view that:

> "Since ASAT weapons are the space weapons that exist at present, to start with their prohibition is of certain practical significance. The Chinese delegation, therefore, can go along with this proposal. However, I wish also to point out that the prohibition of other types of space weapons should by no means be ignored" (CD/PV.423, 21 July 1987).

On 4 February 1988, M. Kusuma-Atmadja, Minister for Foreign Affairs of Indonesia, suggested that "the ABM Treaty should be reinforced in the context of new technological developments, including provisions to prohibit anti-satellite weapons" (CD/PV.437, 4 February 1988).

The idea of a total ban on anti-satellite weapons was also supported by the representatives of Burma (CD/PV.358, 22 April 1986), Czechoslovakia (CD/PV.418, 2 July 1987), Egypt (CD/PV.389, 17 February 1987), Morocco (CD/PV.367, 3 July 1986), Romania (CD/PV.296, 5 March 1985), Venezuela (CD/PV.398, 19 March 1987) and Zaire (CD/PV.461, 28 April 1988).

Limitation of anti-satellite weapons

The limitation of anti-satellite weapons is the subject of a whole series of proposals (France, Netherlands, Pakistan, Sri Lanka, United Kingdom).

In particular, a French proposal of 12 June 1984 (CD/PV.263) to this effect was subsequently reiterated and elaborated on several occasions.

The delegation of France proposed the adoption of measures to achieve multilateral agreement on the limitation of anti-satellite systems, including in particular the prohibition of all such systems capable of hitting satellites in high orbit, the preservation of which, in the view of France, was most important from the point of view of strategic balance. Simultaneously, the delegation of France proposed the prohibition, for a renewable period of five years, of the deployment on the ground, in the atmosphere or in space of beam-weapon systems capable of destroying ballistic missiles or satellites at great distances and, as a corollary to this, the banning of corresponding tests.

The French proposal was supported by the delegations of Sri Lanka and Netherlands.

In 1985, the representative of Sri Lanka said:

> Another area in which my delegation thinks we can commence work with a good prospect of making substantial progress is high-altitude ASATs. A ban on these, including their development, deployment and testing, is feasible at the present stage when only low-altitude ASATs are in existence. Inevitably we have to engage in a collective quest for clear definitions of what we mean by high-altitude ASATs" (CD/PV.325, 30 July 1985).

On 2 July 1987, H. van den Broek, Minister for Foreign Affairs of the Netherlands, set out the position of his country:

> "Banning all anti-satellite weapons would therefore pose serious problems. Moreover, it would hardly seem feasible because there are so

many ways to destroy a satellite. But maybe it is not too late to seek some way of protecting satellites in high orbit, which are generally of a stabilizing nature" (CD/PV.418).

The delegations of Pakistan and the United Kingdom also suggested that consideration should be given to issues of limiting anti-satellite activities.

The representative of the United Kingdom stated at the meeting of the Ad Hoc Committee on 28 July 1987 that "the possibility of placing constraints on some elements of anti-satellite activity, consistent with the security interests of all States" deserved serious study at an appropriate point.

The delegation of Pakistan pointed out that:

"The importance of a ban on ASAT weapons is widely recognized. Needless to say, such a ban should give protection only to satellites performing peaceful functions, and not those which threaten the security of other States. An ASAT ban, therefore, presupposes an agreed definition of peaceful functions and a verification system aimed at determining whether objects launched into space fulfil this criterion" (CD/PV.460, 26 April 1988).

Banning of anti-satellite weapons in combination with immunity for artificial Earth satellites

A number of delegations suggested a third course for resolving the issue of banning anti-satellite weapons, one assuming the possibility of the simultaneous solution of two interrelated problems: on the one hand, that of banning anti-satellite systems and on the other, that of immunizing artificial Earth satellites. This combined course of action, involving the linking of a ban on ASAT weapons with immunity for artificial Earth satellites, is reflected in document CD/777, "Main provisions of a treaty on the prohibition of anti-satellite weapons and on ways to ensure the immunity of space objects", which was submitted on 31 July 1987 by the delegations of the German Democratic Republic and the Mongolian People's Republic.

In the opinion of the delegations of the German Democratic Republic and the Mongolian People's Republic:

"It should be within the scope of the treaty to:

(a) ban the use of force against any space object; (b) prevent the deliberate destruction or damaging of space objects; (c) prohibit interference with the normal functioning of any space object;

(d) proscribe the development, production or deployment of ASAT weapons; and (e) provide for the destruction under international control of any ASAT weapons that may already exist" (CD/PV.425, 28 July 1987).

Similar proposals were advanced by the delegations of Argentina (CD/PV.296, 5 March 1985), Australia (CD/PV.329, 13 August 1985), Bulgaria (CD/PV.471, 4 August 1988), Hungary (CD/PV.388, 12 February 1987), Poland (CD/PV.402, 2 April 1987) and the USSR (CD/PV.385, 3 February 1987).

Elimination of existing anti-satellite weapons

On 3 February 1987, the Soviet delegation stated that:

"the Conference could consider the possibility of drawing up an international agreement guaranteeing immunity for artificial Earth satellites which do not carry weapons of any sort on board. In this connection, it would also be desirable to study the possibilities of eliminating existing anti-satellie systems ... [The] USSR, manifesting good will, continues to refrain from placing anti-satellite systems in outer space" (CD/PV.385).

Similar proposals and appeals to the United States and the USSR to eliminate their existing ASAT weapons came from the delegations of Bulgaria (CD/PV.402, 2 April 1987), Egypt (CD/PV.389, 17 February 1987), the German Democratic Republic (CD/777, 31 July 1987), India (CD/PV.408, 23 April 1987, K. Natwar Singh, Minister for Foreign Affairs), Mongolia (CD/777, 31 July 1987), Morocco (CD/PV.367, 3 July 1986) and Poland (CD/PV.402, 2 April 1987).

In response, the United States representative to the meeting of the Ad hoc Committee on 2 August 1988 stated:

"In spite of the fact that the existing legal régime already regulates the use and types of ASATs, some have proposed the additional step of eliminating all existing anti-satellite weapons and banning any such weapons in the future. Such proposals raise a host of problems.

A key problem concerns the verification of compliance with such an agreement. We do not believe that verification schemes proposed to date are adequate to this purpose.

Another problem with a comprehensive ASAT ban concerns the legal issue of how anti-satellite weapons are to be defined and categorized. In addition to systems that a State would choose to identify as an

anti-satellite weapon, there are many different types of weapons systems that could be used to destroy, damage or disable satellites. Such systems could include, inter alia, manoeuvering space objects, direct-ascent ABM interceptors, ground-based directed-energy weapons, long-range ballastic missiles, and weapons that could be carried by orbital complexes."

3. Confidence-building measures, verification and control issues

A third group of proposals before the Ad hoc Committee concern issues of verification and control.

International space inspectorate (ISI)

In 1987, the delegation of the USSR advanced the idea of creating an international space inspectorate (CD/PV.385, 3 February 1987).

On 6 August 1987, E.A. Shevardnadze, Minister for Foreign Affairs of the USSR, stated, in addressing the Conference on Disarmament:

"In our opinion, verification will have a particularly important role to play in preventing an arms race in space.

We would be extremely grateful if you took a close look at the proposal for the establishment of an international verification system to make sure that outer space remains peaceful. Is not the idea of inspecting every space launch a reasonable one? There are as yet not that many space launch centres in the world, and the presence of international inspectors there would reliably guarantee that the objects placed in outer space are not weapons and are not equipped with any weapons. But we go further, and propose not merely a presence but a permanent presence of groups of inspectors at all space launch sites. Information about each upcoming launch, including the location of the site, the type of launch vehicle, general information about the object to be launched and the time of launch would be given in advance to representatives of the inspectorate ...

our proposal provides for the right to conduct an on-site inspection should suspicion arise that a launch was carried out from an undeclared launch site.

And, in the event of a total ban on space strike arms, the Soviet Union would be willing to extend inspections to storage facilities, industrial plants, laboratories, testing centres, etc." (CD/PV.428, 6 August 1987).

On 17 March 1988, the representative of the USSR submitted for consideration by the Conference on Disarmament a document entitled "Establishment of an international system of verification of the non-deployment of weapons of any kind in outer space" (CD/817, which detailed a verification system, the structure of an international space inspectorate and the modalities of its operation.

The need for inspections at launch sites was referred to in a statement made by a representative of Argentina on 21 March 1987.

> "The space Powers, which are few in number, also have only a few places for launching objects into space. Verification of the nature of the objects that are placed in space could be affected at the launch sites themselves and that would entirely dispel all doubts as to the military or peaceful nature of an object sent into space" (CD/PV.423).

The delegations of Bulgaria (CD/PV.402, 2 April 1987), Canada (CD/PV.433, 25 August 1987), Czechoslovakia (CD/PV.390, 19 February 1987), German Democratic Republic (CD/PV.425, 28 July 1987), Mongolia (CD/PV.400, 26 March 1987), Pakistan (CD/PV.460, 26 April 1988), Poland (CD/PV.402, 2 April 1987), Sri Lanka (CD/PV.404, 9 April 1987) and Sweden (Ad hoc Committee, 23 March 1988) also supported the proposal by the USSR concerning the establishment of an international space inspectorate and indicated the need for further work on verification and control issues.

The United States delegation voiced its opposition to the idea of the creation of an international space inspectorate at the meeting of the Ad hoc Committee on 9 August 1988, state, in particular, that:

> "The United States foresees substantial legal, technical, political and organizational difficulties associated with any type of international verification inspectorate. First, the United States believes that treaties already in place adequately regulate military activities in space, while also permitting the conduct of important national security and self-defence activities such as early warning of attack ... Second, the United States believes that the Soviet proposal could be more destabilizing than stabilizing because it could circumvent the development or compromise the effectiveness of strategic defence capabilities that actually threaten no one."

International satellite monitoring agency (ISMA)

In 1978, at the first special session of the United Nations General Assembly devoted to disarmament, France proposed the establishment of an international satellite monitoring agency (ISMA) to verify compliance with certain bilateral arms control agreements and monitor crisis situations.

In the Final Document adopted by that session, the Assembly took note of France's proposal and later that year, at its thirty-third regular session, it adopted resolution 33/71 J, in which it requested the Secretary-General to obtain the views of member States on this question and appoint a group of qualified governmental experts to undertake a study on the technical, legal and financial implications of establishing such an agency. In compliance with that mandate, the Secretary-General appointed experts from Argentina, Austria, Burkina Faso, Colombia, Egypt, France, India, Indonesia, Italy, Romania, Tunisia, Sweden and Yugoslavia.

In its report entitled "Study on the implications of establishing an international satellite monitoring agency" (A/AC.206/14, 6 August 1981) and submitted in 1981 for consideration by the second special session devoted to disarmament the group of experts identified two main sets of technical tasks the ISMA would be charged with:

(a) Verification of compliance with existing and future international arms control and disarmament agreements;

(b) Monitoring of crises.

The report also indicated that the ISMA's facilities could be acquired in stages. It was suggested that phase I could comprise the establishment of an image processing and interpretation centre, i.e. the use of video data obtained from existing civilian and non-civilian satellite systems. Phase II was envisaged as comprising the establishment of ground-based data-receiving stations that could receive data from appropriate civilian and non-civilian satellite systems. Phase III, according to the authors, would allow the agency to acquire its own space segment, i.e. ISMA's own monitoring satellites, in addition to national systems.

No decision on the ISMA was taken at the second special session of the General Assembly devoted to disarmament (1982).

As a follow-up to this proposal, J.B. Raimond, Minister for Foreign Affairs of France, stated on 19 February 1987, at the Conference on Disarmament that "At the institutional level, the idea of entrusting

responsibility for seeing to the application of transparency measures and the code of conduct for space activities to the International Satellite Monitoring Agency might be considered" (CD/PV.390).

The proposal by France to establish an ISMA attracted interest in the Conference on Disarmament from the delegations of Argentina (CD/PV.296, 5 March 1985), Australia (CD/PV.329, 13 August 1985), German Democratic Republic (CD/PV.425, 28 July 1987), India (CD/PV.450, 22 March 1988), Japan (CD/PV.419, 7 July 1987), Pakistan (CD/PV.413, 16 July 1987), Poland (CD/PV.402, 2 April 1987), Sri Lanka (CD/PV.404, 9 April 1987) and Sweden (Ad hoc Committee, 22 March 1988).

The representative of the Federal Republic of Germany, in particular, said on 26 July 1985 that:

> "The involvement of international verification organizations is ... an urgent requirement for such future international legislation. Despite the considerable cost such mechanisms may entail, the projected International Satellite Monitoring Agency, planned and developed by France or - in a regional context - the European Space Agency, might be called upon to take on practical responsibilities in this field" (CD/PV.318, 26 July 1985).

At the third special session of the United Nations General Assembly devoted to disarmament, E.A. Shevardnadze, Minister for Foreign Affairs of the USSR, suggested in furtherance of the French idea proceeding to the establishment of an international space monitoring agency.

At the third special session of the United Nations General Assembly devoted to disarmament, the delegations of Bulgaria, Czechoslovakia and the USSR submitted a working paper (A/S-15/AC.I/15, 13 June 1988), paragraph 6 of which reads:

> "In order to provide the international community with reliable and comprehensive 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, it would be possible in pursuance of the idea put forward by France to establish an international space monitoring agency which in future would become an integral part of the international verification agency. The Conference on Disarmament should be instructed to begin detailed negotiations on the establishment of the international space monitoring

agency, including programming and material technical facilities for its work. The Soviet Union would be prepared to consider the question of launching satellites belonging to the agency from Soviet carrier rockets on mutually acceptable terms".

No decision on establishing an international space monitoring agency was taken at the third special session of the United Nations General Assembly devoted to disarmament either.

PAXSAT concept

On 30 April 1987, the representative of Canada stated that a concept termed PAXSAT had been prepared under the authority of Canada's Department of External Affairs.

Two alternatives were proposed for using space-based remote sensing for verification purposes:

PAXSAT-A - use of third countries' satellites to verify non-deployment of weapons in space; and

PAXSAT-B - use of third countries' satellites to assist in the verification of confidence-building agreements and conventional forces limitation agreements in a regional context, primarily in the context of Europe.

Certain themes, whose examination contributed to the prospects of actually realizing such a multilateral verification system, had been identified as core elements of the PAXSAT concept. They included the following:

"Firstly, there must be the prospect of a significant multilateral agreement to warrant the level of sophistication of technology and the expenditure of funds required for the actual development of such an advanced technical verification system.

Secondly, parties to such a multilateral agreement should have the option, at least, of participating in its verification procedures.

Thirdly, use of the PAXSAT system should be treaty-specific: it would be used only with respect to the agreements to which it expressly applied, as part of an overall verification process for those agreements alone.

Fourthly, the treaty being verified would establish the requisite political authority for the verification mechanism and its operation.

Fifthly, technology requirements would be met collectively by participants and would, of course, be open to all States.

Sixthly, PAXSAT should be based, to the extent possible, on existing openly available technology, without requiring major costly improvements" (CD/PV.410, 30 April 1987).

The positions taken by the delegations of the USSR and the German Democratic Republic with regard to that proposal merit attention.

Thus, the representative of the USSR stated that:

"... realization of the PAXSAT-A alternative would promote further confidence and mutual trust; at the same time, this alternative could be viewed as a certain addition in the field of space issues to our proposal for an international space inspectorate which would carry out activities on the ground. As for the PAXSAT-B alternative, it could be useful in implementing the idea put forward by the USSR of setting up under United Nations auspices machinery for wide-ranging international verification" (Ad hoc Committee, 9 August 1988).

For his part, the representative of the German Democratic Republic observed that:

"with this Soviet proposal and the French suggestion that an international satellite monitoring agency be set up, plus Canada's PAXSAT concept, a full-fledged system of possible verification measures is shaping up. At this stage, it would seem desirable to probe its potential. Therefore, the Ad hoc Committee should have a closer look, in the near future, at all the issues related to that matter, preferably by enlisting the help of experts, who could function as a working group of the Committee" (CD/PV.425, 28 July 1987).

Canada's proposal was also supported by the delegations of Australia (CD/PV.426, 30 July 1987, China (CD/PV.423, 21 July 1987), Czechoslovakia (CD/PV.418, 2 July 1987), India (CD/PV.450, 22 March 1988, K. Natwar Singh, Minister for Foreign Affairs), Japan (CD/PV.419, 7 July 1987), Poland (CD/PV.432, 20 August 1987) and Sweden (Ad hoc Committee, 22 March 1988).

"Rules of the road" - Code of conduct

On 26 July 1985, the representative of the Federal Republic of Germany suggested in the Conference on Disarmament the establishment of a code of conduct for outer space, which "could contain the mutual renunciation of measures that would interfere with the operation of space objects of other

States, the establishment of minimum distances between space objects, speed limits imposed on space objects that approximate one another, as well as related measures" (CD/PV.318).

In 1986, the delegation of the Federal Republic of Germany submitted to the Conference on Disarmament a new code of "rules of the road" which:

> "could contribute in large measure to attenuating the effects of unintended escalation and to limiting the risks arising from misunderstandings in crisis situations. Additional rules that could be comprised in such a code might include: restrictions on very low altitude overflight by manned or unmanned spacecraft; new stringent requirements for advanced notice of launch activities; specific rules for agreed, and possibly defended, keep-out zones; grant or restriction of the right of inspection; limitation on high velocity fly-bys or trailing of foreign satellites; and established means by which to obtain timely information and consult concerning ambiguous or threatening activities" (CD/PV.345, 6 March 1986).

In the view of the Federal Republic of Germany, the necessity of elaborating "rules of the road" was also conditioned by the "over-population" of outer space and the resulting risks of unintended collisions of satellites with space debris.

A proposal of a similar nature was advanced by France, which suggested in 1987 the elaboration of "a number of specific measures ... concerning the registration and notification of space objects, as well as the multilateral code of conduct applicable to space activities" (CD/PV.390, 19 February 1987, J.B. Raimond, Minister for Foreign Affairs).

The Polish delegation considered that the "two different proposals coming from different delegations compose a logical whole" (CD/PV.402, 2 April 1987).

The proposals of the Federal Republic of Germany and France were supported by a number of delegations, including Belgium (CD/PV.422, 23 July 1987, L. Tindemans, Minister for Foreign Affairs), the German Democratic Republic (CD/PV.425, 28 July 1987), Sri Lanka (CD/PV.354, 8 April 1986), Sweden (Ad hoc Committee, 23 March 1988), the United Kingdom (Ad hoc Committee, 28 July 1987) and the USSR (Ad hoc Committee, 9 August 1988).

Proposal concerning declarations of non-deployment of weapons in outer space on a permanent basis

On 21 July 1987, the representative of Argentina stated:

"We believe that the international community would be truly relieved to hear that so far there are no weapons deployed in outer space. In our view, the means to be used to inform public opinion of that situation, that is, that no weapons have been placed permanently in outer space could well be the report that the Conference on Disarmament submits to the General Assembly. It would be sufficient in that respect for the Ad hoc Committee to include a paragraph stating that none of the member States represented in the Conference on Disarmament has permanently deployed weapons in outer space. That assertion avoids the complex issue of defining what a space weapon is, since what is sought is a simple statement to the effect that the member States represented in the Conference on Disarmament have not deployed weapons of any nature or kind. It is simply a matter of asserting that there have been no weapons deployed. It would then be enough, as we have said, for such an assertion to appear in the report of the Conference on Disarmament, and we hope that none of the States members of the Conference on Disarmament will refuse to include such a paragraph. A declaration to that end could well constitute the point of departure for more specific and binding initiatives in future with appropriate verification measures" (CD/PV.423).

This proposal by Argentina was confirmed on 14 July 1988 (CD/PV.465).

The proposal by Argentina was supported in principle by the delegations of Sweden (CD/PV.430, 13 August 1987), Sri Lanka (CD/PV.432, 20 August 1987) and the Soviet Union, whose representative in the Ad hoc Committee referred on 16 August 1988 to the statement of 6 June 1985 by M.S. Gorbachev, General Secretary of the Central Committee of the CPSU, to the effect that "the Soviet Union will not be the first to take arms to outer space".

At the same time, the United States delegation questioned the usefulness of this proposal because:

"Unilateral non-verifiable declarations on the non-deployment of weapons in space on a permanent basis raise a host of problems. For example, the issue of how 'weapons' are to be defined and categorized is a serious one for national security and should not be dismissed lightly. As I noted earlier in my presentation, for example, there are many

different kinds of weapon systems that could be used against space objects, and not all of them need necessarily be placed in space. These are precisely the kinds of issues that are under discussion in the bilateral negotiations. One must also keep in mind that information which is presented can only facilitate work if it is accurate; inaccurate declarations decrease confidence and complicate work" (Ad hoc Committee, 2 August 1988).

4. Strengthening the 1975 Convention on Registration of Objects Launched into Outer Space

A number of delegations suggested strengthening the Convention on Registration of Objects Launched into Outer Space.

In his statement on 26 July 1988, the representative of Canada said:

"What we are suggesting ... is that States parties to the Convention on Registration of Objects Launched into Outer Space should take their reporting responsibilities more seriously and go beyond the requirement to disclose the general function of space objects, to provide more detailed and timely information concerning the function of a satellite, including whether the satellite is fulfilling a civilian or military mission or both. What we are in fact suggesting is the strengthening of the application of the Convention for arms control purposes" (CD/PV.468).

A similar attitude was expressed by India at the meeting of the Ad hoc Committee on 9 August 1988:

"The Registration Convention specifies a limited number of parameters on which information is voluntarily provided by launching States. This registry of space objects does not, in its present form, serve as a useful data base for a disarmament agreement".

The proposal to extend the scope of the Registration Convention met a critical response from the United States delegation:

"The Registration Convention is not an arms control or confidence-building instrument. It was negotiated in order to establish an international registry of objects for the purpose of giving practical effect to the 1972 Convention on liability for damage caused by space objects. Its consideration falls properly within the venue of COPUOS, and not the Ad hoc Committee on outer space of the Conference on Disarmament. Moreover, in 1986, the General Assembly conducted a review of the Convention and agreed that revisions were unnecessary. The Convention is working effectively" (Ad hoc Committee, 2 August 1988).

Concerning the above question, the Soviet representative in the Ad hoc Committee stated on 16 August 1988:

"The Registration Convention was negotiated in the Committee on the Peaceful Uses of Outer Space and mainly falls within its purview. The Committee on the Peaceful Uses of Outer Space has the necessary expertise to analyse the status of implementation of the Registration Convention and it would seem more appropriate to tackle the issue of the amendment of that instrument within that body".

Various ideas concerning the question were advanced at different times by the delegations of Argentina (CD/PV.423, 21 July 1987), Australia (CD/PV.408, 23 April 1987), China (CD/PV.372, 22 July 1986), France (CD/PV.390, 19 February 1987, J.B. Raimond, Minister for Foreign Affairs), Japan (CD/PV.419, 7 July 1987), Netherlands (CD/PV.481, 13 September 1988), Pakistan (CD/PV.460, 26 April 1988), Sri Lanka (CD/PV.404, 9 April 1987, Sweden (CD/PV.301, 21 March 1985) and Zaire (CD//PV.461, 28 April 1988).

On 25 August 1988, Australia and Canada submitted working paper CD/OS/WP.25, in which, in amplification of the Convention's provision concerning the responsibility of each State party for disclosing the general function of space objects, they suggested that States parties to the Registration Convention should examine the possibility of providing more timely and specific information concerning the function of a satellite, including whether the satellite was fulfilling a civilian or military mission or both, and that space Powers that were not parties to the Convention could also submit the same information under General Assembly resolution 1721 (XVI) of 1961, which called on all States to provide information on their space objects.

5. Proposal relating to a multilateral instrument to supplement the USSR/United States ABM Treaty of 1972

On 26 June 1986, the delegation of Pakistan presented for consideration by the Conference on Disarmament a document entitled "Proposal relating to the prevention of an arms race in outer space: international instrument to supplement the ABM Treaty" (CD/708), in which it suggested, as an interim measure and until the conclusion of a comprehensive treaty to prevent an arms race in outer space, the adoption of an international instrument to supplement the ABM Treaty:

"with a view to ensuring that the self-restraint accepted by the two super-Powers in that Treaty is not negated by acts of omission or

commission by either of these Powers or by other technologically advanced States. The instrument that my delegation has in mind should, inter alia: (a) recognize and reconfirm the importance of the United States-USSR ABM Treaty in preventing the escalation of an arms race, especially in outer space; (b) note the commitment of the two Powers to continue to abide strictly by the provisions of this treaty, in particular its Article V under which they have undertaken not to develop, test or deploy ABM systems or components of such systems that are sea-based, air-based, space-based or mobile-land-based; (c) provide a clear interpretation of the research activities permissible under the ABM Treaty, not only for the two parties but also for other technologically advanced States, so as to facilitate an impartial interpretation of ambiguous aspects of the Treaty such as the definition of 'research' and the phrase 'use of other physical principles'; (d) include a commitment by other technologically advanced States not to take their own research beyond the limits accepted by the United States and the USSR; and (e) include a mechanism to provide for the redress of such activities that are contrary to the limitations contained in the ABM Treaty" (CD/PV.367, 3 July 1986).

The delegations of Indonesia (CD/PV.437, 4 February 1988, Mr. Kusuma-Atmadza, Minister for Foreign Affairs) and Peru (CD/PV.428, 6 August 1987) suggested that the ABM Treaty should be supplemented by provisions banning anti-satellite weapons.

IV. CONCLUSION

The primary objective of the authors of this document has been to help to identify and reveal the negotiating capacity of the Ad hoc Committee, whose task it is to contribute towards preventing an arms race in outer space.

In the course of its work the Ad hoc Committee has accumulated a wealth of useful ideas and proposals. Most of the proposals contain constructive provisions acceptable to a large number of delegations and constituting a good basis for specific and goal-oriented negotiating activity. It is symptomatic that proposals and ideas aimed at such activity came from all groups of States, including the delegations opposing the early start of talks.

The above comparative analysis of proposals, opinions and views is aimed at making it possible to outline common approaches towards resolution of the problems confronting the Ad hoc Committee.

In submitting this document for consideration by the Conference on Disarmament, the delegation of Mongolia invites the representatives of all the States participating in the work of that body to pursue in a constructive spirit creative dialogue in the quest for common ground for multilateral negotiations on the issue of preventing an arms race in outer space.

This review is intended to make it possible to outline common approaches towards resolving the problems before the Ad hoc Committee, to introduce analytical methods and to streamline the approach towards discussing the various aspects of the problem of preventing an arms race in outer space.

CONFERENCE ON DISARMAMENT

CD/908
CD/OS/WP.29
31 March 1989

Original: ENGLISH/SPANISH

LETTER DATED 31 MARCH 1989 ADDRESSED TO THE SECRETARY-GENERAL OF THE CONFERENCE ON DISARMAMENT FROM THE PERMANENT MISSION OF VENEZUELA TRANSMITTING A LIST OF EXISTING PROPOSALS ON THE PREVENTION OF AN ARMS RACE IN OUTER SPACE

The Permanent Mission of Venezuela presents its compliments to the Secretary-General of the Conference on Disarmament and has the honour to request him to arrange for the attached paper to be distributed as an official document of the Conference on Disarmament.

The paper presented by Venezuela contains a list of proposals submitted to the Conference on Disarmament as of 23 August 1988 concerning item 5 of the agenda. This document is being submitted as a contribution to the structured discussion of item 3 of the programme of work of the Ad hoc Committee on the Prevention of an Arms Race in Outer Space.

VENEZUELA

EXISTING PROPOSALS ON THE PREVENTION OF AN ARMS RACE IN OUTER SPACE

Following is a list of the various proposals submitted as of 23 August 1988 to the Conference on Disarmament on the Prevention of an Arms Race in Outer Space. In each case, reference is made to the document containing the proposal or to the verbatim record of the session in which the proposal was presented.

This document is presented as a contribution to the structured discussion of point 3 of the work programme of the Ad hoc Committee on the Prevention of an Arms Race in Outer Space.

I. Comprehensive proposals

- Treaty prohibiting the use of force in outer space or from space against the Earth (Union of Soviet Socialist Republics, CD/476)
- Treaty prohibiting the stationing of weapons of any kind in outer space (Union of Soviet Socialist Republics, CD/274)
- Amendment to Article IV of the 1967 Outer Space Treaty or additional protocol thereto (Venezuela, CD/PV.398, CD/PV.471, CD/851)
- Amendment to the Outer Space Treaty, Multilateralization of the ABM Treaty and ban of ASAT systems other than space-based systems (Peru, CD/PV.428, CD/PV.472).

II. Proposals addressing specific aspects of the problem of preventing an arms race in outer space

- Definition of space weapons (Venezuela, CD/709/Rev.1 and CD/OS/WP.14/Rev.1; Bulgaria and Hungary, CD/OS/WP.14/Rev.1; China, CD/OS/WP.14/Rev.1; Sri Lanka, CD/OS/WP.14/Rev.1; Union of Soviet Socialist Republics, CD/OS/WP.14/Rev.1; German Democratic Republic, CD/OS/WP.14/Rev.1/Add.1)
- Declarations on the non-deployment of weapons in space (Argentina, CD/PV.423 and CD/PV.465)
- Main provisions of a treaty on the prohibition of ASAT weapons and ways to ensure the immunity of space objects (German Democratic Republic and Mongolia, CD/777)
- General treaty on the prohibition of anti-satellite weapons with specific protocols applicable to different categories of satellites (India, CD/PV.423)
- Prohibition of untested anti-satellite system (France, CD/PV.263, CD/PV.303)

- Prohibition of dedicated ASAT weapons (Sri Lanka, CD/PV/404)
- Multilateral instrument to supplement the 1972 ABM Treaty (Pakistan, CD/708)
- Step-by-step approach to the protection of satellites, including identifying which satellites should be subject to protection, followed by identification of an appropriate protection régime for such satellites (Australia, CD/PV.374)
- Protection régime for satellites that contribute to stability and to verification, and their associated ground stations (Australia, CD/PV.279)
- Multilateralization of provisions of bilateral agreements relating to the immunity of satellites (France, CD/375, CD/PV.263 and CD/PV.339; United Kingdom, CD/PV.311)
- "Rules-of-the-road" agreement (Federal Republic of Germany, CD/PV.318 and CD/PV.345)
- Code of conduct (France, CD/PV.390)
- Confidence-building measures (France CD/375)
- Measures aiming at greater transparency in space activities (Japan CD/PV.419; Australia CD/PV.374; Canada, CD/PV.468)
- Strengthening of the 1975 Registration Convention (France, CD/PV.263, CD/PV.303; Sweden, CD/PV.252; Sri Lanka, CD/PV.404; Pakistan, CD/PV.413, CD/PV.460; Argentina, CD/PV.423; India, CD/PV.423; Canada, CD/PV.468)
- International satellite monitoring agency (France, A/S-10/AC.1/7)
- World space organization (Union of Soviet Socialist Republics, CD/PV.337)
- International Space Inspectorate (Union of Soviet Socialist Republics, CD/817)
- Establishment of a group of experts (Sri Lanka, CD/PV.325, CD/PV.354; Sweden CD/PV.385, CD/PV.430; India, CV/PV.423).

III. Interim measures

- ASAT moratorium (Pakistan, CD/708; Sweden, CD/PV.288 and CD/PV.301; Mongolia CD/PV.297; Union of Soviet Socialist Republics, CD/PV.302).

CONFERENCE ON DISARMAMENT

CD/908/Rev.1
CD/OS/WP.29/Rev.1
27 March 1990

ENGLISH
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LETTER DATED 22 MARCH 1990 ADDRESSED TO THE SECRETARY-GENERAL OF THE CONFERENCE ON DISARMAMENT FROM THE PERMANENT MISSION OF VENEZUELA TRANSMITTING A LIST OF EXISTING PROPOSALS ON THE PREVENTION OF AN ARMS RACE IN OUTER SPACE

The Permanent Mission of Venezuela presents its compliments to the Secretary-General of the Conference on Disarmament and has the honour to request him to arrange for the attached paper to be distributed as an official document of the Conference on Disarmament.

This paper was presented by Venezuela during the 1989 session of the Conference on Disarmament (CD/908, 31 March 1989). It has been updated and contains the list of the proposals concerning item 5 of the agenda that had been submitted to the Conference on Disarmament as of 31 August 1989.

This document is being submitted as a contribution to the structured discussion of item 3 of the programme of work of the Ad hoc Committee on the Prevention of an Arms Race in Outer Space.

VENEZUELA

EXISTING PROPOSALS ON THE PREVENTION OF AN ARMS RACE IN OUTER SPACE

Following is a list of the various proposals on the prevention of an arms race in outer space submitted to the Conference on Disarmament as of 31 August 1989. In each case, reference is made to the document containing the proposal or to the verbatim record of the session in which the proposal was presented.

This document is presented as a contribution to the structured discussion of point 3 of the work programme of the Ad hoc Committee on the Prevention of an Arms Race in Outer Space.

I. Comprehensive proposals

- Treaty prohibiting the use of force in outer space or from space against the Earth (Union of Soviet Socialist Republics, CD/476)

- Treaty prohibiting the stationing of weapons of any kind in outer space (Union of Soviet Socialist Republics, CD/274)

- Amendment to Article IV of the 1967 Outer Space Treaty or additional protocol thereto (Venezuela, CD/PV.398, CD/PV.471, CD/851)

- Amendment to the Outer Space Treaty, multilateralization of the ABM Treaty and ban of ASAT systems other than space-based systems (Peru, CD/PV.428, CD/PV.472)

- Amendment of the Outer Space Treaty (Peru, CD/939).

II. Proposals addressing specific aspects of the problem of preventing an arms race in outer space

- Definition of space weapons (Venezuela, CD/709/Rev.1 and CD/OS/WP.14/Rev.1; Bulgaria and Hungary, CD/OS/WP.14/Rev.1; China, CD/OS/WP.14/Rev.1; Sri Lanka, CD/OS/WP.14/Rev.1; Union of Soviet Socialist Republics, CD/OS/WP.14/Rev.1; German Democratic Republic, CD/OS/WP.14/Rev.1/Add.1)

- Declarations on the non-deployment of weapons in space (Argentina, CD/PV.423 and CD/PV.465)

- Main provisions of a treaty on the prohibition of ASAT weapons and ways to ensure the immunity of space objects (German Democratic Republic and Mongolia, CD/777)

- General treaty on the prohibition of anti-satellite weapons with specific protocols applicable to different categories of satellites (India, CD/PV.423)

- Prohibition of untested anti-satellite system (France, CD/PV.263, CD/PV.303)

- Prohibition of dedicated ASAT weapons (Sri Lanka, CD/PV.404)

- Multilateral instrument to supplement the 1972 ABM Treaty (Pakistan, CD/708)

- Step-by-step approach to the protection of satellites, including identifying which satellites should be subject to protection, followed by identification of an appropriate protection régime for such satellites (Australia, CD/PV.374)

- Protection régime for satellites that contribute to stability and to verification, and their associated ground stations (Australia, CD/PV.279)

- Multilateralization of provisions of bilateral agreements relating to the immunity of satellites (France, CD/375, CD/PV.263 and CD/PV.339; United Kingdom, CD/PV.311)

- Proposals concerning monitoring and verification and satellite immunity (France, CD/937)

- "Rules-of-the-road" agreement (Federal Republic of Germany, CD/PV.318 and CD/PV.345)

- Code of conduct (France, CD/PV.390)

- Confidence-building measures (France, CD/375)

- Confidence-building measures (Poland, CD/941)

- Measures aiming at greater transparency in space activities (Japan CD/PV.419; Australia CD/PV.374; Canada, CD/PV.468)

- Strengthening of the 1975 Registration Convention (France, CD/PV.263, CD/PV.303; Sweden, CD/PV.252; Sri Lanka, CD/PV.404; Pakistan, CD/PV.413, CD/PV.460; Argentina, CD/PV.423; India, CD/PV.423; Canada, CD/PV.468)

- International satellite monitoring agency (France, A/S-10/AC.1/7)

- World space organization (Union of Soviet Socialist Republics, CD/PV.337)

- International Space Inspectorate (Union of Soviet Socialist Republics, CD/817)

- Establishment of a group of experts (Sri Lanka, CD/PV.325, CD/PV.354; Sweden CD/PV.385, CD/PV.430; India, CD/PV.423)

- Proposal concerning a satellite image processing agency (France, CD/945)

III. Interim measures

- ASAT moratorium (Pakistan, CD/708; Sweden, CD/PV.288 and CD/PV.301; Mongolia CD/PV.297; Union of Soviet Socialist Republics, CD/PV.302).

CONFERENCE ON DISARMAMENT

CD/915
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CHILE

Legal problems raised by the militarization of outer space

The most important principle in the Charter of the United Nations is undoubtedly the prohibition of the threat or use of force, which, in addition, has been given the status of jus cogens under legal doctrine. This means that it may not be derogated from under any other norm of international law which is not of a similar nature and that it applies universally to all countries, whether or not they are Members of the United Nations. This is stated explicitly in Article 2, paragraph 4 of the Charter, which reads: "All Members shall refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any State, or in any other manner inconsistent with the Purposes of the United Nations".

However, commentators are far from unanimous when it comes to deciding how "force" should be interpreted: whether it means only armed force or, on the contrary, it includes all forms of coercion.

A comprehensive reading of the Charter, and of its guiding principles, would suggest that force is to be construed in a broad sense, as including other forms inconsistent with the attainment of the fundamental objective of the United Nations: the maintenance of peace.

Thus, for example, Article 1, paragraph 1 of the Charter of the United Nations states that the Purposes and Principles of the Organization are:

> "To maintain international peace and security, and to that end: to take effective collective measures for the prevention and removal of threats to the peace, and for the suppression of acts of aggression or other breaches of the peace, and to bring about by peaceful means, and in conformity with the principles of justice and international law, adjustment or settlement of international disputes or situations which might lead to a breach of the peace".

Further, Article 41 of the Charter seems to suggest that there are other kinds of force besides "armed force", since it provides that: "The Security Council may decide what measures not involving the use of armed force are to be employed to give effect to its decisions ...".

Moreover, it should be borne in mind that peace is indivisible and that effective preservation of peace requires a general condemnation of all obstacles that stand in the way of its full attainment. In this context, any type of "force", armed or otherwise, would be at variance with the overriding objectives of international peace and security and co-operation among nations. The two objectives are closely interrelated, so much so that it is impossible to conceive of co-operation in a world affected, at various levels, by situations inconsistent with a state of peace. Nevertheless, it must be admitted that there are legal formulas that correspond more closely to the concept of "threat of force", which also has the status of jus cogens.

Further, aggression, which is a "species" within the broader "genus" of force, is indeed restricted solely to the use of armed force (General Assembly resolution 3314 (XXIX) of 14 December 1974, annex, article 1). In this connection, Article 39 of the Charter of the United Nations draws a clear distinction, stating that "The Security Council shall determine the existence of any threat to the peace, breach of the peace, or act of aggression ...".

No matter how an act that is inconsistent with peace is characterized - whether as force or as threat of force - it must be rejected as absolutely incompatible with the above-mentioned principles of the Charter.

The only possible use of force accepted by legislators is for purposes of individual or collective self-defence in response to the "unlawful" use of force (provided for in Chapter VII of the Charter).

It might thus be concluded that any act aimed directly at breaching the peace could be considered an act of force or a threat of the use of force, and that the prohibition of the use of force and the threat of force may not be derogated from in any way under any bilateral or multilateral treaty or convention. The fact that they are jus cogens rules means that they are peremptory norms in consonance with the need effectively to protect the overriding objective of world peace. Nevertheless, in the case of economic coercion, the question is not so clear-cut. According to one school of thought, economic coercion is more of a violation of the principle of non-intervention (Art. 2, para. 7 of the Charter).

The norm contained in Article 2, paragraph 4 of the Charter is, accordingly, universally binding and has given rise to an entire body of customary law. The many declarations of indefinite duration made by States provide manifest and irrefutable evidence that this norm is accepted as an internationally binding principle.

In the specific case of space law, any activity carried out in space which affects the security of a subjacent State would be unlawful in accordance with the provisions of article I, paragraph 1 of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (see General Assembly resolution 2222 (XXI) of 19 December 1966, annex), which provides as follows: "The exploration and use of outer space, including the Moon and other celestial bodies, shall be carried out for the benefit and in the interests of all countries, irrespective of their degree of economic or scientific development, and shall be the province of all mankind".

It is thus quite clear that exploration and use of space can be lawful only if carried out in the manner prescribed in the above norm, from which we may conclude that there exists a new subject of international law: mankind.

Moreover, General Assembly resolutions 1721 (XVI), 1962 (XVIII) and 1963 (XVIII), inter alia, provide that the activities of States in the exploration and use of outer space should be carried on in accordance with international law, including the Charter of the United Nations. This means that outer space is not a "legal vacuum", since the Charter and General Assembly resolution 2625 (XXV) of 24 October 1970, entitled "Declaration on Principles of International Law concerning Friendly Relations and Co-operation among States in accordance with the Charter of the United Nations", categorically prohibit the threat or use of force.

In accordance with the truly determinant clause of space law (that space activities should be carried on for the benefit of mankind), it is not valid to assert in this case that everything which is not expressly prohibited is permissible. States cannot ignore the mandate that outer space, the Moon and other celestial bodies must be used in the interests of all peoples of the world. This mandate, characterized for the first time in international law, must be the focal point of space activity. It represents an innovation established by space law, a lex specialis of a higher order than ever before. The criterion of the lawfulness of a given space activity must be centred on compliance with the rules set forth in article I, paragraph 1 of the outer space Treaty (see General Assembly resolution 2222 (XXI), annex), rather than on the absence of a prohibitive norm. Such absence, under space law, does not change unlawful acts into internationally lawful acts. It must also be added that the unlawfulness of an act should be judged in accordance with the relevant provisions of international law, and not in accordance with internal law. This principle applies even more decisively in space law because of the higher ethical considerations on which it is based.

What is true in theory, however, is not fully reflected in the outer space Treaty (General Assembly resolution 2222 (XXI), annex). In that regard, article IV of the Treaty provides as follows:

> "States Parties to the Treaty undertake 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 weapons in outer space in any other manner.
>
> "The Moon and other celestial bodies shall be used by all States Parties to the Treaty exclusively for peaceful purposes. The establishment of military bases, installations and fortifications, the testing of any type of weapons and the conduct of military manoeuvres on celestial bodies shall be forbidden. The use of military personnel for scientific research or for any other peaceful purposes shall not be prohibited. The use of any equipment or facility necessary for peaceful exploration of the Moon and other celestial bodies shall also not be prohibited."

Some would argue that the placing of nuclear weapons or other weapons of mass destruction in space, in clear violation of the outer space Treaty, could imply the initiation of an armed attack, which would justify the adoption of

collective defence measures (Article 39 of the Charter). The hostile nature of a space object is a question which must be determined in each case by the Security Council, in addition to which it must decide what measures should be taken: capture or destruction of the object, or other appropriate steps, such as complete or partial interruption of economic relations.

In any case, the prohibition set forth in this article is clearly a partial one, since it states only that "the Moon and other celestial bodies shall be used ... exclusively for peaceful purposes". Outer space and celestial bodies would therefore not have the same legal status, and certain military uses of outer space would not be legally excluded.

Another weakness of the rule in question is the part relating to weapons, since it merely refers to "objects carrying nuclear weapons" or any other kinds of weapons of "mass destruction". What about other weapons which do not fit into the specified categories? For example, are "anti-satellite" weapons lawful?

It is clear that article IV is not consistent with the general theory of space law, since under the latter, as we know, activities of States in outer space must be carried on for the benefit of all mankind. This implies, as a corollary, a total and absolute rejection of the use or threat of force.

The above-mentioned provision is not consistent, for example, with the provisions of articles I and II of the outer space Treaty, which require States to carry on their space activities in accordance with international law, including the Charter of the United Nations. The latter, as was noted earlier, implies a broader concept of force than merely "armed force".

It is therefore urgently necessary to establish the necessary theoretical consistency, which can be done through the elaboration of a protocol additional to the outer space Treaty, which will clearly contribute, from the legal point of view, to preserving outer space as an area of co-operation and not of possible confrontation.

It is also important, for the purposes of this analysis, to keep in mind article 3 of the Agreement Governing the Activities of States on the Moon and Other Celestial Bodies (see General Assembly resolution 34/68, annex, of 5 December 1979), which reads as follows:

> "1. The Moon shall be used by all States Parties exclusively for peaceful purposes.
>
> "2. Any threat or use of force or any other hostile act or threat of hostile act on the Moon is prohibited. It is likewise prohibited to use the Moon in order to commit any such act or to engage in any such threat in relation to the Earth, the Moon, spacecraft, the personnel of spacecraft or man-made space objects.
>
> "3. States Parties shall not place in orbit around or other trajectory to or around the Moon objects carrying nuclear weapons or any other kinds of weapons of mass destruction or place or use such weapons on or in the Moon.

"4. The establishment of military bases, installations and fortifications, the testing of any type of weapons and the conduct of military manoeuvres on the Moon shall be forbidden. The use of military personnel for scientific research or for any other peaceful purposes shall not be prohibited. The use of any equipment or facility necessary for peaceful exploration and use of the Moon shall also not be prohibited."

Although the agreement concerning the Moon is more complete and comprehensive, it does not offer a satisfactory solution to the problem of militarization either. In the first place, there is no specific reference in it to outer space, but only to the Moon and other celestial bodies. Secondly - and here it contains the same paradox as article IV of the outer space Treaty - the provision is binding only on "States Parties", thereby denying the universalist and jus cogens character of the principle of the non-use of force. Moreover, in paragraph 3, it falls into the same error as the outer space Treaty, prohibiting "objects carrying nuclear weapons or any other kinds of weapons of mass destruction", without including other conventional weapons. Lastly, the wording of the last sentence of paragraph 4 seems inappropriate because of the ambiguity and imprecision of the terms "any equipment or facility necessary", and because it does not reaffirm that the Moon should be explored and used "exclusively for peaceful purposes".

However, article 3 of the agreement concerning the Moon also contains some positive elements - for instance, the prohibition of any other hostile act or threat of hostile act on the Moon. Thus it considerably broadens, although in a rather vague way, the notion of prohibited actions.

In any case, the key to the analysis of the problem of militarization lies in the correct interpretation of the term "peaceful uses", as used in the space agreements. There are two views of this problem. One is that the term "peaceful uses" excludes only "aggressive uses" (those which would be equivalent to the use of armed force), and the other is that any non-peaceful use of outer space - except certain "non-aggressive" uses - would be prohibited.

The concept of "peaceful uses" should be examined in the context of the evolution of contemporary international law and the principles which serve as a context for space law. Accordingly, only those activities which are not generally of a "non-peaceful" nature would be permissible in outer space and on the Moon and other celestial bodies. Those who support the theory that it is difficult or impossible, legally speaking, to separate the categories of "military" and "non-military" feel that only clearly discernible armed force should be prohibited.

It is worth asking in that connection how the "thesis of aggression" can be reconciled with the provisions of the eighth preambular paragraph of the outer space Treaty, which reads: "Taking account of United Nations General Assembly resolution 110 (II) of 3 November 1947, which condemned propaganda designed or likely to provoke or encourage any threat to the peace, breach of the peace or act of aggression, and considering that the aforementioned resolution is applicable to outer space".

The conceptual scope of that paragraph should dispel any uncertainty. In condemning propaganda as contrary to peace, it also explicitly includes "non-aggressive" elements, whether or not they are the product or consequence of a specific space activity.

Propaganda, as well as, for example, fraudulent use of remote-sensed data which might jeopardize the security of the country sensed, could constitute an unfriendly act without going so far as to constitute a direct breach of the peace. Such acts should give rise to international liability.

Furthermore, it is important to point out that the official attribution of civil or military status to an individual civil or military, does not per se allow a juridical decision on the matter. It is the underlying intent which determines whether a human act is civil or military in nature. For example, a civilian official, using non-peaceful means, may commit a "non-aggressive" military act; likewise a military person may devote himself to scientific research for purely peaceful purposes.

Accordingly, the fact that an activity is not strictly aggressive does not alter its intrinsically unlawful nature. As was pointed out earlier, the criterion of lawfulness has more to do with whether an act is consistent with the provisions of the first two paragraphs of article I of the outer space Treaty, than with the absence of a prohibition.

It should also be pointed out that, although the extension of territorial sovereignty to outer space, including the Moon and other celestial bodies, is prohibited, space law is nevertheless based on the principle of respect for the sovereignty of the subjacent nations. This is bound up with the right of States to safeguard their national security, to have priority access to their natural resources and to give their consent for the divulging of certain data regarding their territory to third nations. Accordingly, States must carry out their exploration and exploitation of outer space in accordance with international law, particularly the Charter of the United Nations, bearing in mind, in particular, the principles of sovereign equality and non-interference in internal affairs.

It being established that outer space can be used only for exclusively peaceful purposes, there are none the less circumstances in which the use of force by a country can be justified in accordance with the rules of general law. This is true in the case of self-defence, provided that the force is not disproportionate to the aggression suffered. In the case of outer space, in accordance with the rule which grants the State of registry exclusive jurisdiction over its space objects (article I of the registration Convention), space law does not permit foreign intervention, still less does it permit armed attack on a spacecraft or space station. Only the State of registry is permitted to exercise jurisdiction over its spacecraft in outer space or on celestial bodies, and even to destroy them, provided it does not damage third parties or the environment.

If attacked, the State of registry could resort to self-defence, not only because it is permitted to do so by the very principles of that legal concept, but also because its ability to carry out an activity for the benefit of the

world would be adversely affected. On this point doctrine is very clear, as is the proposition that peace is indivisible and that any action which contravenes peace would have deleterious consequences for all peoples of the universe.

It is well known that two factors are of importance where self-defence is concerned: being the object of an attack or aggression and ensuring proportionality of response. Direct attention must be focused on what is called "advance self-defence", which is purely preventive in nature. It is incompatible with the provisions of Article 51 of the Charter of the United Nations, and its use can involve all kinds of arbitrary actions. Moreover, who is to determine the urgency of resorting to pre-emptive attack, which in itself may constitute a serious breach of world peace? Given the lack of effective mechanisms for resolving international conflicts, how can one prevent a nation which is allegedly about to be attacked from acting as both judge and interested party?

As was stated earlier, in the case of outer space, both aggressive and non-aggressive activities may be judged to be "non-peaceful", and those which involve attack or aggression (use of force in general) imply the immediate invoking of self-defence. And yet, in certain cases it may be very tricky to determine whether an aggression was committed, particularly when dealing with actions whose effects are not instantaneous, bearing in mind, further, that most nations do not have the proper technological means for detecting and preventing non-peaceful use of outer space. These nations can only resort to the United Nations system, invoking the provisions of Chapter VII so that the Security Council may take whatever measures are most effective. For reasons which are easy to understand, this is not a satisfactory and efficient answer to the problem under consideration. Indiscriminate use of the veto in the Council would leave a country which is merely a passive beneficiary of space technology completely defenceless.

Systems for verification of compliance with disarmament treaties constitute another aspect on which there is a need for legislation so that such systems can be granted legitimacy. Some of the most important tasks would be those outlined in the document of the Preparatory Committee for the second special session of the General Assembly devoted to disarmament, concerning a proposed international satellite monitoring agency. They include:

1. Monitoring compliance with arms limitation and disarmament agreements;

2. Monitoring of crisis situations, with applications in the following circumstances:

(a) Early warning of attacks through observation of the build-up of military and paramilitary forces;

(b) Evidence of border violations;

(c) Cease-fire monitoring;

(d) Assistance to United Nations observers for peace-keeping purposes;

(e) Strengthening of international confidence-building measures and observance of the ban on the threat or use of force.

It is important to establish certain clarifications concerning early-warning satellites. Acts involving "advance self-defence" cannot be deemed lawful. Such a possibility is not envisaged in the Charter of the United Nations, and it could constitute a dangerous invitation to pre-emptive attack. None the less, there are certain events in which missions of early-warning satellites would be permissible: while each State is entitled to its privacy and territorial integrity, this must not conflict with the higher right of the international community to see to its own security. If reconnaissance satellites can act as a deterrent to nuclear war, then their function would be legally justified. This does not mean prejudging the lawfulness of "espionage", which, although there is no international legislation on the matter, would be prohibited as constituting unacceptable interference in the affairs of a State. The characterization of "unacceptable interference" would be based, inter alia, on its clandestine nature.

CONFERENCE ON DISARMAMENT

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GERMAN DEMOCRATIC REPUBLIC

Working Paper

ASAT components and ways of verifying their prohibition

1. A prohibiton of ASAT weapons would be an important step on the road towards preventing an arms race in outer space. In 1987 the German Democratic Republic and the Mongolian People's Republic submitted a proposal on "Main Provisions of a Treaty on the Prohibition of Anti-Satellite Weapons and on Ways to Ensure the Immunity of Space Objects" (CD/777). Such a prohibition could also be implemented stage-by-stage. To that end it is necessary to arrive at a clear definition of that weapon category and to identify the pertaining components. This task should be assigned to a group of scientific experts.

2. The term "ASAT weapon" means: "any device or installation based entirely or partially on land, sea, in the air and/or in outer space which is specifically designed and intended to destroy, damage or interfere with the normal functioning of space objects" (CD/OS/WP.14/Add.1). A wide range of technologies can be used for ASAT purposes. An important group is the so-called "conventional" ASAT weapons. As their technological development is highly advanced, prohibition of these weapons is of particular urgency. This paper deals with important components of that category of ASAT weapons and with ways of verifying their prohibition. The paper is designed to promote the discussion of definition issues with a view to speeding up the elaboration of an ASAT agreement.

Limits on space-based chemical rockets and mass accelerators

1. Assemblies of small rockets on space platforms

(i) Kind of space weapons or components

Small devices (launching bodies) to be launched by rockets from space platforms to destroy other objects in space.

(ii) Required acts to prevent such weapons

Observe a lower mass limit of launching bodies.

Limit the number of such launching bodies per space platform (possibly to three).

Renounce the guiding devices on such launching bodies which could aim at other objects in space.

Launching organizations should refrain from launching space platforms containing assemblies of small rockets. If relaunches from space platforms are necessary for space exploration or application purposes, that number should be limited to possibly three per platform. The re-launching devices should have no guiding sensors which could assist in homing in on objects in outer space at high speed.

(iii) Description of weapon and stage of development

Weapons of this kind do not yet exist in outer space but are completely in reach of current technology. Small rockets to be launched from space platforms against objects in space have to be understood as the weapons part of a comprehensive system, including detection, communications and guiding components. As a weapon system, the small rockets would be installed in assemblies on steerable platforms. The platform itself would possess communications, orientation and guiding devices. The rockets would be equipped with small homing devices.

(iv) Type of verification

Verification of this type of weapon is difficult. Monitoring of manoeuvres of the space platform and inspection in orbit by national technical means (NTM) should bring some degree of confidence. Reliable verification is, however, only possible through on-site inspection of the platform and its devices on the ground before launch. Early prohibition of tests in orbit would greatly support the process to prevent weapons, development and deployment.

2. Mass drivers (rail guns) on space platforms

(i) Kind of space weapons or components

Electromagnetic mass drivers (rail guns) on space platforms using small masses as projectiles.

(ii) Required acts to prevent such weapons

Refrain from launching mass drivers into outer space. Since there is, at least currently and in the near future, no need for electromagnetic mass drivers in non-weapon applications in near-Earth space, such devices should generally be prohibited on space platforms.

(iii) Description of weapon and stage of development

Devices of this kind are still in a laboratory development stage. No space weapon capability has been reached so far. The basic principle is that of accelerating a small mass of a few grammes in an electromagnetic field. The size of the linear accelerator is of the order of meters. In weapons mode the accelerator needs precise orientation towards the target.

(iv) Type of verification

Monitoring of in-orbit manoeuvres and inspection in orbit by NTM should bring some degree of confidence. The size of the accelerator sledge as well as of the power source should give some hints on their purpose. Reliable verification is, however, only possible through on-site inspection of the space platform before launch. Monitoring of experiments in space after launch is hardly feasible.

Limit on ground-based chemical rockets and mass accelerators

1. Limits on ground-based direct ascending missiles

(i) Kind of space weapons or components

Ground-launched, sea-launched or air-launched direct ascending missiles to destroy space objects by direct collision, explosion or projectile emission.

(ii) Required acts to prevent such weapons

Refrain from developing vehicles for high delta-v interception of space objects.

Refrain from testing devices in high delta-v intercept mode.

Distinguishing between normal rocket launches to reach high altitudes and high delta-v intercept missions is not an easy monitoring task. Therefore, the flight path of rocket missions should be kept outside a minimum distance (possibly 100 Km.) of objects in space.

(iii) Description of weapon and stage of development

Ground and air-launched devices of this kind are at the most advanced development stage in a weapon mode. Tests in ASAT, ABM and ATBM modes have already been carried out. They get their weapons capability by combining the launching and aiming devices. For altitudes up to about 1,000 Km. ground or air-launched carriers may be used. The entire procedure from missile launch to intercept would take about 10 minutes. For higher altitudes large ground-launched rockets carrying the homing device are necessary. Interception of an object in geostationary orbit would take about one hour.

Missiles with homing devices for high delta-v intercept have to be understood as the weapons part of a comprehensive early detection, aiming and pointing system of space-based and land-based components with extensive communication among the system's elements.

(iv) Type of verification

Effectively monitoring compliance with a prohibition on this kind of weapon is difficult. Installation and preparation of large ground-launched rockets for high altitude intercept can, to a certain degree, be monitored by NTM. If the launching sites are known, a close on-site inspection would further reduce uncertainty.

Weapon systems using small carriers and, in particular, the air-launched missiles are, however, hardly accessible to NTM. Even on-site inspections in the vicinity of launching aircraft can easily be circumvented by covert stockpiling. Only field tests of the system can be monitored by NTM and other means. A fully developed and field-tested weapon system poses nearly insurmountable verification problems. Therefore, the most effective way to verify compliance with an effective ban is to prohibit immediately any further testing of such weapon systems, since they are not operational yet.

This is a chance for an effective monitoring system for adequate verification minimizing the residual risk. The gap between verifiability and acceptability would widen with each further field test until a threshold is skipped where effective verification is no longer feasible.

2. Ground-based mass drivers (rail guns)

(i) Kind of space weapons or components

Ground-based electomagnetic mass drivers (rail guns) using small masses as projectiles.

(ii) Required acts to prevent such weapons

Refrain from using projectiles of ground-based mass drivers against space objects.

(iii) Description of weapon and stage of development

Devices of this kind are still in a laboratory stage of development. No space weapon capability has been reached so far. The size of the linear accelerator is of the order of meters. In weapons mode, the accelerator sledge needs precise pointing towards the target.

(iv) Type of verification

Close monitoring of the surface activities using NTM could bring some confidence. The required level of security for adequate verification can, however, only be achieved by on-site inspection.

Space mines and collision bodies

1. Space mines

(i) Kind of space weapons or components

Space mines are devices which manoeuvre close to a target spacecraft and explode on command, destroying the target with the debris from the explosion.

(ii) Required acts to prevent such weapons

Refrain from:

developing devices with exploding mechanisms aimed at destroying space objects;

launching such devices;

manoeuvring such devices close to space objects.

Explosives on board of space objects should only be used in a very limited mode. Any unnecessary creation of debris should be avoided. The dedicated development of exploding mechanisms for collision purposes by debris as a result of the explosion should be strictly prohibited. Launching such devices into outer space should be avoided. Manoeuvring of such devices close to a space object and any test of the device should be strictly prohibited. A keep-out zone around the space object of a radius of several kilometres might be sufficient, say, for conventional explosives in order to prevent reliable testing.

(iii) Description of weapon and stage of development

Space mines would constitute a typical ASAT weapon. They are manoeuvrable objects deployed in space covertly or openly only for the purpose of destroying distinct space objects on command. For an attack, the space mine would change its orbit to approach the target satellite with support from ground-based and space-based tracking systems and on-board homing sensors. The technology necessary to develop this weapon system is currently available. Launching procedures and manoeuvres close to a target space object would be easily detectable by tracking systems and space sensors but could hardly be distinguished from normal orbital rendezvous procedures.

(iv) Type of verification

Effectively monitoring compliance with a prohibition agreement is a difficult task. The most promising procedure would be the observance of keep-out zones around space objects of other States incorporated in a general framework of rules of the road in outer space.

Such behaviour can be monitored by NTM.

Tests of the manoeuvring part of a space mine mission can, however, hardly be distinguished from rendezvous procedures.

A measure that would ease the verification process would be the early prohibition of space mine tests. This would prevent development and deployment of effective space mines. Prior notification of planned launches and orbital changes in conjunction with on-site inspections before launch would considerably lower the remaining risk of the verification process.

2. Manoeuvrable collision bodies

(i) Kind of space weapons or components

Collision bodies are space objects placed in orbit which are capable of changing their position and approaching other space objects at high speed. Relative velocities in excess of one meter per second would, for some space objects, be sufficient to cause irreversible damage.

(ii) Required acts to prevent such weapons

Prohibition of devices on board of space objects for homing in at high speed.

Refrain from homing-in tests at high velicity.

Strictly observe keep-out zones around space objects of other States.

Since collisions at any speed are not necessary for exploration purposes and non-weapon applications, such manoeuvres should generally be prohibited. To that end, it would be necessary neither to develop nor test devices for homing-in procedures at high speed. Approaches of space objects at high speed should be kept outside a minimum distance (possibly 100 Km.).

(iii) Description of weapon and stage of development

A manoeuvrable collision body incorporates some features of a space mine and some of a space-based or ground-based collision device. A weapon of this kind would possess a high degree of manoeuvrability and a precise homing device. Strict observance of a keep-out zone around possible target spacecraft would effectively prevent weapon mode applications. Many existing spacecraft possess, to a certain degree, the capability to be used in a weapon mode of this kind. As a weapon system, however, they are not very efficient.

(iv) Type of verification

Verification that could effectively monitor compliance with an agreement prohibiting development and deployment is difficult. Tests of such a system would only partly be amenable to NTM. Inspection of the spacecraft before launch would not considerably enhance the level of confidence. Monitoring of the observance of keep-out zones is, however, effectively feasible through NTM.

3. Forming clouds of small collision bodies

(i) Kind of space weapons or components

Clouds formed by a large number of small collision bodies (metal pellets).

(ii) Required acts to prevent such weapons

Refrain from intentional injection of pellets into outer space.

Reduce explosions in outer space to the lowest level possible in order not to create debris.

Any intentional ejection of small bodies from spacecraft in outer space should strictly be prohibited. Aiming devices for projectile emission from spacecraft should neither be developed nor deployed. The production of debris by explosion or normal operation of spacecraft should be kept to an absolute minimum.

(iii) Description of weapon and stage of development

A weapons application of this kind would consist of a spacecraft capable of emitting a large number of small metal pellets which would be directed towards a target space object in the form of a narrow beam or by spreading over a large area and would cause damage by collision. This could even be extended to endangering a whole region of orbits, such as the geostationary orbit zone. Even in relatively small quantities such collision bodies would pose potential danger to any space mission that crosses the cloud of pellets.

(iv) Type of verification

Effective verification of compliance with an agreement prohibiting application of clouds of small collision bodies would only be possible by on-site inspection of the spacecraft before launch. Deployment in space of such pellets can hardly be monitored because of their small radar and optical cross sections.

CONFERENCE ON DISARMAMENT

CD/933
CD/OS/WP.34
13 July 1989

Original: ENGLISH

LETTER DATED 13 JULY 1989 FROM THE PERMANENT REPRESENTATIVE OF THE THE GERMAN DEMOCRATIC REPUBLIC ADDRESSED TO THE SECRETARY-GENERAL OF THE CONFERENCE ON DISARMAMENT TRANSMITTING A WORKING PAPER ENTITLED "SURVEY OF INTERNATIONAL LAW RELEVANT TO IMMUNITY AND PROTECTION OF OBJECTS IN SPACE AND TO OTHER BASIC PRINCIPLES OF OUTER SPACE ACTIVITIES"

On behalf of the German Democratic Republic, Bulgaria and Hungary, I have the honour to submit to you herewith the enclosed text of a working paper, entitled "Survey of international law relevant to immunity and protection of objects in space and to other basic principles of outer space activities", on item 5 of the agenda of the Conference on Disarmament.

I should be grateful if you would arrange for the distribution of this working paper as an official document of the Conference on Disarmament and of the Ad hoc Committee on Prevention of an Arms Race in Outer Space.

(Signed) Peter Dietze
Ambassador

GERMAN DEMOCRATIC REPUBLIC, BULGARIA AND HUNGARY

Working Paper

Survey of international law relevant to immunity and protection of objects in space and to other basic principles of outer space activities

I

The legal protection of space objects is a matter of interest for all States participating in the exploration and use of outer space. It would be an important confidence-building measure and contribute to the strengthening of stability and international security.

The presented survey of international law relevant to immunity and protection of space objects indicates that the existing legal régime for outer space is adding to the protection of space objects. It is of essential importance that all States strictly comply with these agreements and apply all its specific provisions.

The survey also shows that the existing legal régime does not guarantee an all-embracing protection of objects in outer space. The most serious threat to these objects would result from the deployment of weapons in space. Additional measures are needed. They could include, inter alia,

- confidence-building measures, including obligations regarding the enlarged exchange of information and appropriate mechanisms for consultation, inspection and control;

- multilaterally binding obligations on granting immunity to objects in outer space, including "rules of the road" and/or a "code of conduct";

- prohibition of the "weaponization" of outer space and of certain space activities, as the deliberate destruction, the interference with the normal functioning of space objects and the change of their trajectories; the testing of all space weapons; the utilization of space objects for weapons purposes.

Further codification and development of existing rules of international law relating to the protection of space objects would be an essential step towards preventing an arms race in outer space.

Finally, it should be mentioned that a precise definition of the term "space object" reached by multilateral agreement could be very helpful in regard to any issue which might arise relating to the topic in question.

II

The following conclusions can be drawn from the review of international law regarding immunity and protection of objects in outer space (see Annex):

(1) The threat or use of force against an object in outer space is prohibited by generally accepted norms of international law, which are explicitly outlined in special outer space agreements.

(Article 2 United Nations Charter; Declaration on Principles; Article 3 Outer Space Treaty; Article 2 Moon Treaty)

(2) States have to carry on activities in the exploration and use of outer space in the interest of maintaining international peace and security. Emplacement and testing of any kind of weapons of mass destruction is prohibited. The moon and other celestial bodies should not be used for other than exclusively peaceful purposes.

(Article 1 Partial Test-Ban Treaty;
Articles 3, 4 Outer Space Treaty; Article 3 Moon Treaty)

(3) Special objects in outer space suitable to improve international confidence and political stability through verification in the military field are especially protected only on the bilateral level by agreements between the United States and the Soviet Union.

(Article 12 ABM Treaty; Article 5 SALT I; Article 15 SALT II)

(4) Existing multilateral treaties include some essential provisions aimed at guaranteeing the rights of a State with respect to objects it has launched into outer space, in particular norms regulating:

- the relation between registration of a space object by the launching State, on the one hand, and rights of national ownership and jurisdiction, on the other.

  (Article 9 Outer Space Treaty; Article 2 Convention on Registration);

- duties relating to the return of a space object or component parts to the State on whose registry they are enlisted, including special rules on rescue and return of astronauts in the case of accident or any technical disturbance.

  (Articles 5, 8 Outer Space Treaty; Articles 1-6 Rescue Agreement; Articles 10, 12 Moon Treaty);

- conditions regarding international responsibility and liability of a State for damage caused to other space objects.

  (Articles 6, 7 Outer Space Treaty; Articles 3-6 Convention on Liability; Article 14 Moon Treaty);

(5) The protection of objects in outer space is supported by rules of conduct upon which States have agreed in order to prevent any conflict or misunderstanding in connection with space activities, as for instance:

- the duty to carry out such activities in the interest of all countries without discrimination;

- the duty to furnish to a special register of the Secretary-General of the United Nations information regarding objects launched into outer space to the extent practicable;

- the duty not to interfere with the activities of other States on celestial bodies.

(Articles 1, 9-12 Outer Space Treaty; Articles 3-5 Convention on Registration; Articles 5, 8, 9, 13, 15 Moon Treaty)

The United States and the Soviet Union have established detailed notification mechanisms aimed at reducing the risk of nuclear war.

(Articles 3, 4 Agreement to reduce the Nuclear Risk;
Articles 2, 3 Agreement on Nuclear Risk Reduction Centres;
Articles 1, 3 Agreement on Notification of Launches)

CONFERENCE ON DISARMAMENT

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ENGLISH
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LETTER DATED 20 JULY 1989 FROM THE REPRESENTATIVE OF FRANCE ADDRESSED TO THE SECRETARY-GENERAL OF THE CONFERENCE ON DISARMAMENT TRANSMITTING A WORKING PAPER ENTITLED "PREVENTION OF AN ARMS RACE IN OUTER SPACE: PROPOSALS CONCERNING MONITORING AND VERIFICATION AND SATELLITE IMMUNITY"

I have the honour to transmit to you herewith in connection with item 5 of the agenda of the Conference on Disarmament a working paper entitled "Prevention of an arms race in outer space: proposals concerning monitoring and verification and satellite immunity".

I should be grateful if you would arrange for its circulation in all the languages of the Conference as an official document of the Conference on Disarmament and the Ad hoc Committee on Prevention of an Arms Race in Outer Space.

(Signed) Pierre Morel
Ambassador
Representative of France
to the Conference on Disarmament

FRANCE

Working Paper

Prevention of an arms race in outer space: proposals concerning monitoring and verification and satellite immunity

By this document, France, in addition to providing a reminder of a number of points that have emerged from the work of the Ad hoc Committee on Prevention of an Arms Race in Outer Space, wishes to amplify its proposals on the use of outer space for monitoring and verification and on satellite immunity and to propose in this latter respect the creation of an international trajectography centre.

I. THE CONDITIONS FOR PREVENTION OF AN ARMS RACE IN OUTER SPACE

The very special nature of space questions explains in large measure the slowness of progress in this field and makes it one with which it is very hard to deal:

Unlike in other fields of disarmament, the devices concerned, which only a few States possess, operate in a geographical area that is common to all and unappropriated;

Once launched, these unmanned vehicles travel constantly at very high speeds under very limited control from the ground: being generally only slightly manoeuvrable, even those of the most peaceful intent have a potential destructive capacity in the event of collision;

Finally and above all, most of the technologies in question are still evolving. A state of continuing uncertainty as to their future development prevents us from weighing all the strategic implications and thus limits the possibility of negotiating on such systems. It is, after all, very difficult to distinguish in advance in terms of security what is important from what is secondary and what is dangerous from what is effective.

In the face of the complexity of this problem, we must avoid over-simplification and look the facts clearly in the face. Four points at least must be borne in mind when studying the question of the prevention of the arms race in outer space:

(1) First of all, military systems today account for the great majority of space activities and many of those systems - for example, observation

or early-warning satellites - have a manifestly stabilizing function. It would therefore be both illusory and inopportune to envisage complete demilitarization of outer space;

(2) Next, whatever its merits, the present legal régime for outer space is not adequate by itself to prevent an arms race there. This régime, comprising a series of partial agreements of which the most important are often bilateral and giving rise on occasion to intractable differences of interpretation, seems particularly deficient in that there is no provision concerning, for example, anti-satellite systems that are ground-based or that do not involve the use of nuclear weapons or weapons of mass destruction;

(3) Thirdly, operational anti-satellite systems already exist and numerous space objects not designed for the purpose have a potential ASAT capacity by mere collision. Consequently, an absolute ban on anti-satellite systems would seem unverifiable in practice; furthermore, it would be too broad if it was to include stabilizing systems because they might provoke collisions, and if, on the other hand, it was more restrictive, it would allow certain dangers to persist and could no longer be termed an absolute ban;

(4) Finally, the ASAT and ABM problems are closely linked: no multilateral regulation exercise aimed at prohibiting the permanent placing of weapons in space could advance independently of the United States-Soviet bilateral negotiations or, a fortiori, more rapidly than those negotiations.

These few considerations thus suffice to rule out measures which, while attractive in appearance, would in reality be delusive or unsuitable for multilateral treatment for the moment.

It is clear moreover that, in the current state of discussions within the Conference on Disarmament, there is no consensus as to what coercive measures would be appropriate to prevent an arms race in outer space.

But does this mean that we should give up? Certainly not. The multilateral bodies, and first and foremost the Conference on Disarmament, have a special role to play, alongside the bilateral efforts, in promoting further thought on these subjects and resolving the deadlock that we now see. They should first of all work to improve the technical knowledge of the issues and constraints of disarmament in space. Without that deeper knowledge, no agreement will be possible on the means to be applied.

The Conference on Disarmament can also identify pragmatically the fields in which a consensus seems possible here and now. From this standpoint, France notes a welcome change of attitude in two important fields: there is increasing recognition of the usefulness of space for verification and growth in many countries' interest in the subject of the legal immunity of satellites. It is these two subjects that the present working paper is intended to develop.

II. THE PROSPECTS OFFERED BY SPACE OBSERVATION

Space is not just an area for disarmament; it is also a potential tool of disarmament, thanks to the possibility of satellite verification of agreements. Whereas the very concept of verification was long a stumbling block for disarmament efforts, the context has now changed profoundly and the means of verification that are currently envisaged or already in use are substantially more sophisticated and diverse. Moreover, there is now universal recognition of the need to provide an appropriate verification régime for each future agreement.

Similarly, the recent past has been marked by the growing recognition of the stabilizing role of observation satellites and the appearance of high-resolution satellites other than those of the United States and the Soviet Union.

These developments mean that it is now possible to envisage a greater contribution by space to the verification of disarmament agreements and confirm a posteriori the validity of the course France has been proposing since 1978.

After introducing at SSOD-I a proposal for an international satellite monitoring agency (ISMA), which was thoroughly studied by a United Nations group of experts from 1979 to 1981, France proposed at SSOD-III in June 1988 the implementation of the first phase envisaged for ISMA, in the form of an agency for the processing of satellite images (APSI).

This agency would:

Collect, process and disseminate data obtained by means of existing satellites;

Study satellite configurations for civilian purposes (natural disasters, development) or military purposes (verification and crises);

Train photo interpreters.

With regard to the first phase of ISMA, APSI introduces a civilian dimension aimed at allowing, on the one hand, for the lesser precision of data due to the civilian nature of the supplying satellites and, on the other, for the needs of developing countries.

For France, it is important to distinguish very clearly between monitoring and verification. The latter can only be undertaken within the context of a specific agreement, in order to ensure that the agreement is being complied with, and can only be carried out by the countries parties to the agreement.

The result as regards the use of satellites is a natural distinction between the general collection of data, which can be effected by multi-purpose observation satellites, and verification proper, the requirements of which can justify the development of new equipment specific to a particular treaty, to be employed solely by the parties to that treaty and, perhaps, linked to ground facilities.

It would therefore be conceivable, in the long term, to build, for the benefit of the entire international community or of the parties to a particular treaty, either general observation satellites or satellites specializing in the verification of a particular provision. That is one of the things envisaged for the third phase of ISMA.

But it seems to us preferable at the present stage to set as the objective for the initial phase the pooling of the existing data. APSI - a low-cost mechanism - would make possible both the essential training of national experts in the interpretation of space images and, above all, the assessment of what could actually be achieved with satellites in the fields of verification and monitoring. Only from this preliminary phase could the requirements for new systems and the possibilities of specific applications in the future be defined.

It must however be clear that such an agency would be a confidence-building device and would not be intended to be the embryo of a verification system with universal competence attached to the United Nations. The principle of the specificity of verification in fact argues against the entire international community's being responsible for the verification of every disarmament agreement whatever its nature and whoever the parties and seeking to employ one single instrument for that purpose.

III. THE LEGAL IMMUNITY OF SATELLITES: THE PRINCIPLE AND ITS APPLICATION

Our common goal is to guarantee the security of satellites and of space activities that deserve to be protected.

The means to be employed may, naturally, be national, through the active or passive protection of the satellites themselves:

"Active" protection by means of on-board defensive systems would, however, merely make the problem more complex, for such systems would be hard to distinguish from offensive systems;

"Passive" protection through shielding or hardening would, in reality, be costly and penalize the satellites in terms of weight.

But the desired protection can also be ensured multilaterally by providing legal protection through the medium of immunity.

We should continue our efforts to arrive at a consensus on measures acceptable to everyone. But the present difficulties show clearly that it is the legal approach, through satellite immunity, that best corresponds to the capacity for action of the Conference on Disarmament. Moreover, France observes with interest that this topic is being brought up more and more often in the statements made at this Conference.

The idea of immunity is at the heart of the proposals that France has put forward in recent years. This approach is based on a principle, non-interference, and on rules aimed at facilitating compliance with that principle, i.e. a "space code of conduct". For their application, France is today proposing the creation of an appropriate instrument in the form of a trajectography centre.

1. The principle of non-interference

For identifying satellites deserving protection there would seem to be only one effective criterion: whether or not they have the capacity to interfere actively with another satellite.

Deriving naturally from this is a principle: non-interference with non-aggressive space activities, i.e. with devices that do not themselves have a capacity for active interference.

This principle may seem to be already present implicitly in space law and therefore to be pointless or superfluous.

However, it is precisely because it already constitutes in a way a customary practice that it seems to France a likely object of consensus.

Above all, however, this principle is expressly mentioned only in United States-Soviet bilateral agreements and covers more specific situations and concepts than the general principle of the non-use of force laid down in the Charter of the United Nations.

It therefore deserves more explicit recognition by the international community as a whole. Such a more formal statement of the principle might not be sufficient on its own to ensure absolute protection, but it would at least provide an opportunity for a specific commitment by States to a common rule.

In addition, the efforts at definition that will be required for the adoption of this principle will help to clarify the issues in our discussions.

Generally speaking, by instituting an obligation of result and not of means, the approach we are proposing will avoid a number of technical difficulties and provides a way of covering effectively dangers that have been left out of account in most proposals, especially dangers emanating from ground-based devices.

The adoption of a principle of the kind in question would not, however, suffice without the elaboration at the same time of rules facilitating compliance with that principle.

2. A space code of conduct

In various statements in this chamber, France has described the two components of this concept.

First, implementation of the principle of non-interference requires better knowledge of the characteristics of space objects, and hence a strengthening of the 1975 Registration Convention.

One of the tasks for our Committee might therefore be to look into the question what are the typical features of a space object, those that enable it to be identified and a minimum of knowledge to be acquired concerning its principal functions.

Similarly, better knowledge is required of the trajectories of each object. For the moment, trajectories are known only thanks to the use of space tracking devices, most of which are owned by the United States or the Soviet Union.

Consequently, in order to increase confidence and knowledge of all space activities, consideration might be given to the declaration, at the time of the registration of each object, of characteristics such as the orbital elements, the manoeuvrability and the energy sources available or of functional data relating to the on-board equipment.

What would be an adequate degree of precision remains to be determined and the list I have just given is not exhaustive. The legal framework to be adopted for the new régime has also yet to be determined: is what is needed a revision of the 1975 Convention or the adoption of a new text or a resolution of the United Nations General Assembly? It is still too early to decide. On the other hand, we should, as a first step, define the possible content of the new régime so that it contributes as well as possible towards security for space activities.

Secondly, however reliable the future registration régime may be, it will have to be accompanied by rules of behaviour for space vehicles in order to reduce the risk of incidents and above all to avoid their misinterpretation.

The reason is that ignorance of the space environment and the diversity of possible kinds of interference with equipment in orbit might, at a time of tension, cause cessation of the operation of a device to be interpreted as being the result of hostile action justifying retaliation. It is essential, therefore, to be able to distinguish at any time between a breakdown or an involuntary collision and a deliberate attack.

The rules of conduct that might be envisaged would concern manoeuvres and the prevention of incidents. They would aim at minimizing the risk of accidental collisions, preventing the close-range co-orbital pursuit that is an essential feature of space-mine systems and generally ensuring better knowledge of space traffic.

These rules of conduct might provide, in particular for:

The regular updating, in the event of deliberate manoeuvres or drifting, of the orbital elements declared at the time of registration;

The keeping of a minimum distance between any two satellites placed in the same orbit;

Monitoring of close-range passing.

The aim is to be better aware at all times of the immediate environment of every space object and hence of the risks to which it is exposed.

These two components, the registration system and the rules of behaviour, would constitute a sort of embryo "rules of the road". In addition to the value of enhancing security in the absence of any agreement to limit the systems deployed, this pragmatic approach, in the form of confidence-building measures, ought to prove an acceptable working basis for all States:

It does not prejudge their willingness to subscribe to prohibition or limitation agreements later on and does not in any way impede the bilateral negotiations;

It does not seek to achieve, by different means, an effect equivalent to that of an interdictory régime;

It would none the less, by expanding technical knowledge and increasing confidence, facilitate the elaboration of more binding measures if States came to want them.

This strengthened registration system and code of conduct must, however, be based on an appropriate instrument that would facilitate their day-to-day implementation.

3. A management tool: a trajectography centre

Keeping to the kind of system of trust proposed would be more difficult for States that do not have their own high-performance tracking devices. Constant awareness of the environment of a given satellite requires substantial computing capacity and, above all, knowledge of the orbits of all other satellites.

That implies a régime of total transparency, which would seem incompatible with the constraints inherent in the preservation of technological and military secrets. In particular, the efficiency of the régime would depend in part on the constant updating of orbits and thus on the systematic notification of manoeuvres; to give, say, the precise position of an observation satellite is, however, to disclose thereby the precise object of its monitoring function.

How, then, to reconcile the constraints of confidentiality with the gathering of all the requisite information concerning satellites' trajectories? After an initial consideration of this question, France is of the view that the grouping of that information in a computer system operating on the "black box" principle could constitute an appropriate solution.

The kind of centre we have in mind would receive and store, without publishing it, the orbital data declared at the time of registration and updated in the event of any subsequent change of trajectory.

By calculating permanently in place of all States all the trajectories of the objects on record, the trajectography centre could fulfil a double role without needing to publish the confidential data entrusted to it:

It would spontaneously warn the parties concerned where objects were too close in the same orbit or expected to pass too close;

It would serve, through consultation machinery, to provide proof of good faith in the event of allegations of deliberate collision (failure to declare a manoeuvre in advance would, for example, be a telltale sign).

Such a trajectography centre, which could be run discreetly and at low cost, could, like APSI, be attached to the United Nations international Secretariat. It would be open to all interested States possessing or using satellites.

It would not, however, under any circumstances be any kind of regulatory body laying down rules applicable to space, but merely the instrument of a confidence-building régime to which States would subscribe on a voluntary basis.

Moreover, it would, like APSI, be dependent on the data provided by each of those States concerning its own satellites or the satellites it had detected. Provision could be made for consultation machinery to deal with any disputes as to the identities or positions of particular objects.

This kind of relatively modest mechanism would be an invaluable tool for resolving difficulties associated with the notification of space manoeuvres that is an essential condition for the effective prevention of incidents.

CONFERENCE ON DISARMAMENT

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CD/OS/WP.37
28 July 1989

ENGLISH
Original: SPANISH

PERU

Proposal for Amendment of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies

I. REASONS

1. 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 is an international instrument which to a great extent met the challenges raised by the development of space technology during the decade of the 1960s. Today, however, it does not seem completely satisfactory for dealing with the growing dangers resulting from the possibility of a shift of the arms race to outer space.

2. Apart from the fact that the 1967 Treaty lacks a juridically defined and politically unquestionable sphere of application, the States Parties, which postulate the recognition of outer space as the common heritage of mankind, are now faced with a de facto situation resulting from the development of new weapon systems which, although said to be based on the desire to assemble an impenetrable defence, could also serve as a basis for aspirations to hegemony or to supremacy in all environments.

3. Some thought they saw a sufficient guarantee against any use of force in the limitations established by article III of the 1967 Treaty, since that article subjects the outer-space activities of the States Parties to international law and the Charter of the United Nations. This, however, circumvents the fact that what is being sought is not to confirm a new type of deterrent applicable to outer space and based on proven and deployed weapon systems but rather to hinder or prevent precisely such a scenario from happening.

4. As we know, article IV of the 1967 Treaty makes a distinction between the status applied to outer space and that relating to the moon and other celestial bodies. In the first case, covered by the first paragraph of article IV, the States Parties undertake not to place in orbit around the earth any objects carrying nuclear weapons or any other kinds of weapons of mass destruction, and not to station such weapons in outer space in any other manner. In the second case, covered by the second paragraph of article IV, the undertaking of the States Parties is of much greater scope, in that it specifies that the moon and other celestial bodies shall be used exclusively for peaceful purposes.

5. To refer only to the first paragraph of article IV, the main problem that arises is that because of the express prohibition of the placing in orbit of a particular kind of weapons, it might be inferred, contrario sensu, that the placing of other kinds of weapons is permitted. What is more, if it is assumed that placing in orbit implies at least one complete circling of the earth, the possibility is left open for the development, production and use in outer space of weapons systems which fail to meet that minimum requirement.

6. This is why it was deemed appropriate to submit the amendment proposal indicated below, without any other intention than to contribute to the improvement of the 1967 Treaty and thereby ensure the future use of outer space for exclusively peaceful purposes.

II. PROPOSAL FOR AMENDMENT

7. Without prejudice to the necessary confidence-building measures that may precede or coincide with the adoption of relevant amendments, article IV of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies might be amended as follows:

"Article IV

> The States Parties to the Treaty undertake not to place in orbit around the earth any objects carrying any kinds of weapons, install such weapons on celestial bodies, or station such weapons in outer space in any other manner."

The second paragraph of article IV would remain as it now appears in the 1967 Treaty.

8. Inasmuch as the proposed amendment refers only to weapons placed in orbit, it is also desirable to contemplate the negotiation of an Additional Protocol for the purpose of prohibiting the development, production, storage and deployment of antisatellite weapon-systems which are not stationed in outer space. Also, the same Protocol will have to contain supplementary provisions relating to the limitation of antiballistic-missile systems, whatever their nature.

9. A second Additional Protocol will have to deal with the verification system necessary for guaranteeing faithful compliance with the obligations assumed by the States Parties, which may be a mixed system based principally on a multinational or international approach and on a national approach in accordance with the means of verification available to each State Party.

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CONFERENCE ON DISARMAMENT

CD/941
CD/OS/WP.38
1 August 1989

Original: ENGLISH

LETTER DATED 1 AUGUST 1989 ADDRESSED TO THE SECRETARY-GENERAL OF THE CONFERENCE ON DISARMAMENT BY THE PERMANENT REPRESENTATIVE OF THE POLISH PEOPLE'S REPUBLIC TRANSMITTING A WORKING PAPER ENTITLED "CONFIDENCE-BUILDING MEASURES RELATED TO ITEM 5"

I have the honour to transmit to you herewith in connection with item 5 of the agenda of the Conference on Disarmament a working paper entitled "Confidence-building measures related to item 5".

I should be grateful if you would arrange for its circulation in all the languages of the Conference as an official document of the Conference on Disarmament and Ad hoc Committee on Prevention of an Arms Race in Outer Space.

(Signed): Dr. Bogumil SUJKA
Ambassador
Representative of Poland
to the Conference on Disarmament

GE.89-62745/3557A

POLAND

Working paper

"Confidence-building measures related to item 5"

1. The principal aim of the Conference on Disarmament is to elaborate new agreements establishing international legal obligations upon States. This basic approach need not, however, prevent the Conference from undertaking other measures, particularly in situations where a stage of negotiations or other considerations could make them advisable and the only ones feasible. Different situations may require different approaches and responses. One of these responses could be confidence-building measures.

The CD Rules of Procedure provide that negotiations can be carried on draft treaties and other draft texts. They provide also that reports of the Conference can contain inter alia conclusions, decisions and other relevant documents. Thus, there is nothing that can prevent the Conference from agreeing on some documents not intended to be yet treaties, but reflecting political commitment and providing political guidance which, if followed, would prompt further co-operation in matters under consideration and facilitate further discussions.

2. Taking into account present difficulties in reaching new agreements for the prevention of an arms race in outer space the Conference could adopt measures aimed at strengthening existing international legal régimes applicable to outer space and at increasing transparency of outer space activities, particularly having military or military-related functions.

Proposed measures would express political will to facilitate further work and contribute to building confidence.

It is assumed that at this stage of discussion on item 5 States should have a certain room of sovereign discretion in the implementation of the proposed measures. Their intended flexibility is stressed by expressions like "State consider", "on a voluntary basis", "in the spirit of reciprocity". The intention is, first of all, to create appropriate procedures which if used would demonstrate co-operative behaviour and contribute to better mutual understanding and confidence.

3. These measures would not have the character of legal obligations but they would be adopted by the Conference as a part of its report on the work on item 5.

A corresponding part of the report could be as follows:

Conference on Disarmament:

Taking into account general concern in preventing an arms race in outer space,

Determined to contribute to further work of the Conference on item 5 of its agenda by strengthening existing international law related to outer space and building confidence with respect to activities carried out in outer space, particularly in situations where States lack clear and timely information about the nature of such activities,

1. Reaffirms the importance of international treaties and agreements related to activities of States in outer space;

2. Calls on all States to act in conformity with those international instruments and on those States, which have not yet done so, to consider the possibility of acceding to those instruments;

3. Suggests - in order to assure uniformity in application of those international standards - that all States parties to multilateral treaties and agreements related to activities of States in outer space - consider the possibility of accepting the jurisdiction of the International Court of Justice in all disputes concerning interpretation and application of those multilateral instruments;

4. Suggests further that States consider - as a result of their political decisions and upon a voluntary basis - exchange of information on their outer space activities, particularly having military or military-related functions. This exchange of information may include prior notification of launching of space objects and supply of other information which they may consider useful for building confidence and reduction of misunderstanding.

They will supply this information to other members of the Conference on Disarmament through usual diplomatic channels or through the Secretary-General of the Conference on Disarmament. This information will be open to all States.

Any exchange of information carried out as a result of this document will not affect the obligations or practice of States following from the Convention on Registration of Objects Launched into Outer Space (1975) or from any other agreements or arrangement providing information on or notification of outer space activities;

5. Recognizes that States can contribute further to strengthening confidence by inviting other States voluntarily, on bilateral or other basis,

and in the spirit of reciprocity and goodwill to send observers to launching of space objects or to preparation of or participation in other outer space activities, particularly having military or military-related functions.

The inviting States will determine in each case the number of observers, the procedure and conditions of their participation. It will provide appropriate facilities and hospitality.

The invitation will be transmitted through usual diplomatic channels or through the Secretary-General of the Conference;

6. Urges all States particularly those with outer space capabilities to consider and, where possible, undertake other measures by which mutual understanding and confidence can be increased;

7. The Conference recognizes that the experience gained by the implementation of suggested measures as well as of other measures which States might undertake at their own discretion could lead to further consideration of other means of building confidence and reduction of misunderstanding in the activities of States in outer space.

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CONFERENCE ON DISARMAMENT

CD/945
CD/OS/WP.40
1 August 1989

ENGLISH
Original: FRENCH

LETTER DATED 1 AUGUST 1989 FROM THE REPRESENTATIVE OF FRANCE TO THE SECRETARY-GENERAL OF THE CONFERENCE ON DISARMAMENT TRANSMITTING A WORKING PAPER ENTITLED "SPACE IN THE SERVICE OF VERIFICATION: PROPOSAL CONCERNING A SATELLITE IMAGE PROCESSING AGENCY"

I have the honour to attach a working paper entitled "Space in the service of verification: proposal concerning a satellite image processing agency", which falls under item 5 on the agenda of the Conference on Disarmament.

I would be grateful if you would arrange for its distribution in all the languages of the Conference, as an official document of the Conference on Disarmament and of its Ad hoc Committee on the Prevention of an Arms Race in Outer Space.

(Signed): Pierre MOREL
Ambassador
Representative of France to the Conference on Disarmament

GE.89-62831/1248a

FRANCE

WORKING PAPER

SPACE IN THE SERVICE OF VERIFICATION

PROPOSAL CONCERNING A SATELLITE IMAGE PROCESSING AGENCY

Progress in recent years has confirmed the need for verification arrangements specific to each disarmament or arms control agreement. However, the specific nature of this contractual verification may go hand in hand with a pooling of some of the data gathered.

While a State cannot expect to verify directly compliance with agreements to which it is not a signatory, all the members of the international community may legitimately hope to be supplied with information, since they all have an interest in compliance with disarmament agreements. Furthermore, it is desirable that they should be able to assess the situation leading up to and following on the adoption of such agreements.

Similarly, they must be in a position to evaluate military and non-military threats to their security, whether in terms of crisis management or in terms of prevention and handling of disasters and major risks.

This legitimate need for information may be met by various methods, but few of them would appear to be as exhaustive, as accessible and as appropriate as the use of satellite data.

For a long time a space-based remote sensing capability remained a monopoly of the United States and the Soviet Union. However, movement has recently begun in two directions:

Many other countries have acquired such a capability, of a civilian nature, and the commercial distribution of the data collected has expanded (Landsat, Spot-image, Soyuzkarta);

Simultaneously, specifications have improved and some civilian satellites now offer resolution down to 10 metres.

This situation potentially offers the international community a substantial set of data which are regularly updated and provide a wealth of security-related information.

In 1978, at the first United Nations special session devoted to disarmament, France, anticipating these developments and the importance which might be acquired by satellite observation in facilitating verification of disarmament agreements and crisis management, suggested the establishment of an international satellite monitoring agency (ISMA).

This proposal, which met with a wide welcome, had been studied in depth by a group of experts appointed for the purpose. In its preliminary conclusions, the group

> "recognized the valuable contribution which monitoring by satellites could make to the verification of certain parts or types of arms control and disarmament agreements. This contribution from satellites to the verification process must not in general be seen as excluding other means of verification. The Group also appreciated the positive role that satellite monitoring could play in preventing or settling crises in various parts of the world and thus contributing to confidence-building among nations. The Group considered the gradual approach to the establishment of an international satellite monitoring agency technically feasible and saw in it a way to limit and control the financial commitments required from the international community. With respect to the legal nature of the agency, it appeared that action would have to be taken to ensure its independence, which would constitute an essential guarantee for the objectivity of its analyses".

A detailed study of the technical, legal and financial implications of the establishment of an ISMA was subsequently undertaken, and the report presented to the United Nations General Assembly (1981). The group of experts expressed support for three-phase implementation:

The first phase would see the establishment of an image processing and interpretation centre which would have at its disposal satellite data retransmitted by States possessing remote-sensing satellites;

In the second phase, the agency would be provided with its own ground segment to receive information from the satellites directly;

In the third phase, the agency would acquire its own satellite facilities.

This step-by-step approach, together with an evaluation of the agency's personnel requirements, was intended to allow for its phased establishment. However, despite the favourable reactions expressed, constraints of a political, technical and financial nature have so far prevented the initiation of this process.

The disappearance of the American-Soviet duopoly on remote sensing, and the consequent emergence of more abundant commercial data, prompted France to

propose at the third United Nations special session devoted to disarmament, in June 1988, the speedy establishment of a satellite image processing agency (SIPA). 1/

The principal function of the agency would be to gather and then partially or completely process data emanating from existing civilian satellites, and to disseminate the results of these operations among its members. Independently of the sources available to them at the national level, the members would in this way benefit from a regularly updated data base usable in three areas of major importance:

Disarmament: Either to obtain in this way data to facilitate the verification of disarmament agreements, or to establish certain facts in advance of the conclusion of such agreements (exchange of data, force estimates);

Crisis control and, where appropriate, compliance with disengagement agreements in local conflicts;

Prevention and handling of disasters and major natural risks, and possibly assistance in the devising of certain development programmes encompassing several countries and/or administered by the United Nations.

SIPA would receive digital or analogue data and/or photographic data (chromatic, colour or spectral photographs) and cartographic data.

Initially, SIPA should be able to use space data with a resolution of between 5 and 10 metres, and, where available, very-high-resolution (aircraft-supplied) data. This would cover only optical data (visible or near-infrared spectrum):

Originating from existing weather satellites;

Originating from existing or planned satellites for the study of terrestrial resources - United States (Landsat and future projects), USSR (Meteor), France (SPOT), India (IRS 1), etc.;

Recorded previously by satellites (historical data and Skylab-type data), or by the Federal Republic of Germany's metric camera installed in the American space shuttle.

The documents received by SIPA should subsequently be developed as satellite technology progresses, and as the resolution of image-taking improves.

1/ Cf. statement by Mr. Roland DUMAS before the General Assembly on 2 June 1988, as well as document A/S-15/34.

A. SIPA would have functions in the fields of processing, analysis, management and dissemination of data, organized as follows.

(a) The data processing subsystem (DPS) would, where appropriate, convert raw input data (in digital or photographic form) into data meeting the user's needs, and for that purpose would perform the following operations:

Conversion of photographic and cartographic data into usable digital data;

Conversion of satellite data into usable form, specifically after correction of various radiometric and geometric errors introduced during the acquisition phase.

The processing subsystem should also check the validity of all the scene identification parameters and, where necessary, determine such parameters (in particular, processing of remote maintenance data for the preparation of calibration tables).

(b) The data management subsystem (DMS) would be responsible for:

Reproduction of data;

Data storage, archiving and cataloguing;

Security of data, where necessary.

Data quality control would be an important function of the DMS, and the size of its facilities would depend in large part on SIPA's data dissemination policy (and specifically on whether the agency would disseminate raw data to all its members).

(c) The data analysis subsystem (DAS) would be responsible for converting non-analysed data into information capable of being used by SIPA and by the users. It would combine manual (visual) techniques of photointerpretation and computer-assisted interpretation, which would make it possible to perform a range of functions such as:

Contrast accentuation;

Noise elimination;

Linear filtering;

Utilization of false colours;

Production of composite images;

Analysis of scenes using auxiliary (cartographic or other) data.

(d) Data dissemination subsystem (DDS). Data for dissemination would be produced in the form of permanent images (films, tracings) or in the form of magnetic tapes. Dissemination would be restricted or unrestricted, as the case may be.

B. Beyond this principal function, which constitutes an extension of the first phase of ISMA, SIPA would also perform two other tasks.

Firstly, the very accomplishment of the function of collection and interpretation of satellite data makes SIPA an ideal framework for the vital training of experts in photointerpretation. Data transmitted by satellites, even after initial processing, always require interpretation in order to extract the desired information. This skill is still rather rare, while remote sensing imagery will play a growing role in the developing countries and its application to disarmament points to a promising future.

Secondly SIPA could serve as a research unit or centre, either to identify groups of satellites which could contribute to the implementation of multilateral civilian or military programmes, or even to design various possible linkages between ground sensors and satellite-borne detectors in the verification of disarmament agreements. The growing diversity of treaty provisions to be verified and the equipment involved will call for the development of new systems. Indeed, this process may on occasion play a role in the conclusion of new agreements. Generally speaking, the experience accumulated within SIPA would be irreplaceable in identifying new requirements as regards satellite equipment for use in disarmament verification, and in particular in determining whether specific satellites should be developed for each type of agreement, or whether multipurpose systems may be contemplated.

It is expected that the applications of remote sensing from space will develop in various areas, but the multilateral use made of them is still at an embryonic stage. In particular, many countries are still denied the benefits of the existing facilities because their experts lack adequate training.

The proposed agency, with a simple structure and modest costs, should make it possible to overcome this handicap and offer a real testing ground for the development of new technologies.

CONFERENCE ON DISARMAMENT

CD/954
24 August 1989

Original: ENGLISH

REPORT OF THE AD HOC COMMITTEE ON PREVENTION OF AN ARMS RACE IN OUTER SPACE

I. INTRODUCTION

1. At its 493rd plenary meeting on 9 March 1989, the Conference on Disarmament adopted the following decision:

> "In the exercise of its responsibilities as the multilateral disarmament negotiating forum in accordance with paragraph 120 of the 9inal Document of the First special session of the General Assembly devoted to disarmament, the Conference on Disarmament decides to re-establish an Ad Hoc Committee under Item 5 of its agenda entitled 'Prevention of an arms race in outer space'.
>
> The Conference requests the Ad Hoc Committee, in discharging that responsibility, to continue to examine, and to identify, through substantive and general consideration, issues relevant to the prevention of an arms race in outer space.
>
> The Ad Hoc Committee in carrying out this work, will take into account all existing agreements, existing proposals and future initiatives as well as developments which have taken place since the establishment of the Ad Hoc Committee, in 1985, and report on the progress of its work to the Conference on Disarmament before the end of its 1989 session."

2. In that connection a number of delegations made statements regarding the scope of the mandate.

II. ORGANIZATION OF WORK AND DOCUMENTS

3. At its 493th plenary meeting on 9 March 1989, the Conference on Disarmament appointed Ambassador Luvsandorjiin Bayart (Mongolia) as Chairman of the Ad Hoc Committee. Mr. Vladimir Bogomolov, Political Affairs Officer, United Nations Department for Disarmament Affairs, served as the Committee's Secretary.

4. The Ad Hoc Committee held 17 meetings between 14 March and 24 August 1989.

5. At their request, the Conference on Disarmament decided to invite the representatives of the following States not members of the Conference to participate in the meetings of the Ad Hoc Committee: Austria, Chile, Denmark, Finland, Greece, Ireland, New Zealand, Norway, Portugal, Senegal, Spain, Switzerland, Turkey and Zimbabwe.

6. In addition to the documents of the previous sessions 1/, the Ad Hoc Committee had before it the following documents relating to the agenda item submitted to the Conference on Disarmament during the 1989 session:

CD/891	Letter dated 17 February 1989 addressed to the Secretary-General of the Conference on Disarmament from the Permanent Representative of Canada to the Conference on Disarmament transmitting a compendium comprising plenary statements and working papers relating to the 1988 session of the Conference on Disarmament;
CD/898	Mandate for an Ad Hoc Committee under item 5 of the agenda of the Conference on Disarmament entitled "Prevention of an Arms Race in Outer Space";
CD/905 CD/OS/WP.28	Letter dated 21 March 1989 from the Permanent Representative of the Mongolian People's Republic addressed to the Secretary-General of the Conference on Disarmament transmitting a working paper entitled "Review of proposals and initiatives of the States Members of the Conference on Disarmament under agenda item 5, 'Prevention of an Arms Race in Outer Space'";
CD/908 CD/OS/WP.29	Letter dated 31 March 1989 addressed to the Secretary-General of the Conference on Disarmament from the Permanent Representative of Venezuela transmitting a list of existing proposals on the prevention of an arms race in outer space;
CD/OS/WP/30	Proposals and Comments by Member States of the Conference on Disarmament concerning the participation of technical and other experts in the work of the Ad Hoc Committee on Prevention of an Arms Race in Outer Space, submitted by the German Democratic Republic;
CD/OS/WP.31	Programme of Work;

1/ The list of documents of the previous sessions may be found in the 1985, 1986, 1987 and 1988 reports of the Ad Hoc Committee, and in the special report to the third special session of the General Assembly devoted to disarmament (CD/642, CD/732. CD/787, CD/870 and CD/834, respectively).

CD/915 CD/OS/WP.32 Legal problems raised by the militarization of outer space submitted by Chile;

CD/927 CD/OS/WP.33 ASAT components and ways of verifying their prohibition, submitted by the German Democratic Republic;

CD/933 CD/OS/WP.34 Letter dated 13 July 1989 from the Permanent Representative of the German Democratic Republic addressed to the Secretary-General of the Conference on Disarmament transmitting a working paper entitled "Survey of International Law relevant to immunity and protection of objects in space and to other basic principles of outer space activities";

CD/937 CD/OS/WP.35 Letter dated 20 July 1989, addressed to the Secretary-General of the Conference on Disarmament by the Representative of France transmitting a working paper entitled "Prevention of an arms race in outer space: proposals concerning monitoring and verification and satellite immunity";

CD/OS/WP.36 Proposals by Sweden relating to prevention of an arms race in outer space;

CD/939 CD/OS/WP.37 Proposal for Amendment of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, submitted by Peru;

CD/941 CD/OS/WP.38 Letter dated 1 August 1989 addressed to the Secretary-General of the Conference on Disarmament by the Permanent Representative of the Polish People's Republic transmitting a working paper entitled "Confidence-building Measures related to Item 5";

CD/OS/WP.39 Creation of an International Space Monitoring Agency, submitted by the USSR;

CD/945 CD/OS/WP.40 Letter dated 1 August 1989 addressed to the Secretary-General of the Conference on Disarmament by the representative of France transmitting a working paper entitled "Outer Space and Verification: Proposal for a Satellite Image Processing Agency (SIPA)".

III. SUBSTANTIVE WORK DURING THE 1989 SESSION

7. Following an initial and extensive exchange of views and consultations on the programme and organization of work held by the Chairman with various delegations, the Ad Hoc Committee, at its 4th meeting on 6 April 1989, adopted the following programme of work for the 1989 session:

"1. Examination and identification of issues relevant to the prevention of an arms race in outer space;

2. Existing agreements relevant to the prevention of an arms race in outer space;

3. Existing proposals and future initiatives on the prevention of an arms race in outer space.

In carrying out its work, the Ad Hoc Committee will take into account developments which have taken place since the establishment of the Committee in 1985."

8. With regard to the organization of work, the Ad Hoc Committee agreed that it would give equal treatment to the subjects covered by its mandate and specified in its programme of work. Accordingly, the Committee agreed to allocate the same number of meetings to each of those subjects, namely, issues relevant to the prevention of an arms race in outer space, existing agreements and existing proposals and future initiatives.

9. The work of the Ad Hoc Committee was governed by the mandate which aims at the prevention of an arms race in outer space.

A. Examination and identification of issues relevant to the prevention of an arms race in outer space

10. During the debates in the Committee, member States had an opportunity to exchange views and express positions on different subjects relevant to the prevention of an arms race in outer space. Many delegations defined the subjects discussed, inter alia, as follows: determination of the scope and objectives of multilateral work under the agenda item; the status of outer space as the common heritage of mankind which should be used exclusively for peaceful purposes; the absence at present of weapons in space; the relationship between the prevention of an arms race in outer space and arms limitation and disarmament measures in other areas; the role of the bilateral negotiations and their interaction with the multilateral activities in this field; the identification of the functions performed by space objects, and of the threats confronting them; vulnerability and immunity of satellites; their role and use for purposes of reliable verification; a concept of a comprehensive international verification system; questions relating to compliance and the need for information on how outer space is being used and on national space programmes of military significance; the need for identification and elaboration of mutually agreed legal terms; examination of sufficiency and adequacy of the existing legal régime; various approaches to reach a common understanding of what the existing legal norms do with regard to outer space activities; and functioning of the existing legal instruments.

11. There was general recognition of the importance of the bilateral negotiations between the Union of Soviet Socialist Republics and the United

States of America and it was stressed that bilateral and multilateral efforts were complementary. One delegation observed that the bilateral negotiations have little relation to the more general question of the prevention of an arms race in outer space because they are limited to issues connected with the interpretation of and compliance with the 1972 Treaty between the United States of America and the Union of the Soviet Socialist Republics on the Limitation of Anti-Ballistic Missile Systems. Many delegations emphasized that those negotiations did not diminish the urgency of multilateral negotiations and reaffirmed that, as provided for in General Assembly resolution 43/70, the Conference on Disarmament, as the single multilateral disarmament negotiating forum, had the primary role in the negotiation of a multilateral agreement or agreements, as appropriate, on the prevention of an arms race in outer space in all its aspects. They also stressed that the scope of the work of the Conference on Disarmament was global and larger than the scope of the bilateral negotiations. Some other delegations, while recognizing the need for the Conference to play a role with respect to problems relating to the prevention of an arms race in outer space, stressed that nothing should be done that would hinder the success of the bilateral negotiations. Furthermore, they believed that multilateral disarmament measures in this area could not be considered independently of developments at the bilateral level. It was also stated that despite the special responsibility and obligation of the two principle space Powers, the regulation of outer space and the prevention of an arms race in that environment could not be left entirely to bilateral negotiations between the two major Powers and at the propitious time, the Conference on Disarmament would have to play its role in this field.

12. Many delegations, reiterating that outer space is the common heritage of mankind and should be reserved exclusively for peaceful uses to promote the scientific, economic and social development of all nations, stressed the over-riding importance and urgency of preventing an arms race in outer space. They pointed out that the exploration and use of outer space should be carried out in the interests of maintaining international peace and security and promoting international co-operation and mutual understanding. They stated that military competition between the two major powers was being extended into outer space, leading to the development, testing and possible deployment of weapons systems and their components adaptable for use in or from space. In their view, the introduction of weapons into space would result in an

irreversible competition in the field of space weaponry which would have dangerous consequences for international peace and security, give the arms race a qualitatively new dimension, undermine existing agreements and jeopardize the disarmament process as a whole. It would also, in their opinion, create obstacles to the peaceful uses of outer space to promote scientific, economic and social development. They suggested that legal norms as a general rule should not be allowed to lag far behind the relevant technological developments and that, since this general rule is more valid with respect to space law, this necessitated strengthening the outer space legal régime. They, therefore, were of the view that as a result of the work carried out in previous years, attention should be devoted to proposals for measures to prevent an arms race in outer space. They believed that the various ideas and suggestions that had been advanced provided sufficient points of convergence to move forward in that area. Accordingly, many delegations held that the Ad Hoc Committee should proceed with a more structured and goal-oriented examination of the subject.

13. The Group of Socialist States considered that the commitment to the pursuit of peace made it necessary to end an arms race on the Earth and to prevent it from spilling over into outer space. They recalled that resolution 43/70 of the United Nations General Assembly had reiterated once again that "the Conference has the primary role in the negotiation of a multilateral agreement or agreements, as appropriate, on the prevention of an arms race in outer space in all its aspects" and had requested the Conference to re-establish an Ad Hoc Committee "with an adequate mandate" with a view to undertaking such negotiations. With the content of the "adequate mandate" referred to by the General Assembly being subject to different interpretations, in the view of this group, intensive and fruitful work was possible and needed even under the present mandate, since the Committee had accummulated a lot of proposals and initiatives that should be further pursued. Such issues as a moratorium and a ban on ASAT weapons and guarantees of the immunity of space objects, the establishment of an international space inspectorate and other verification mechanisms, were well identified and ripe for practical solutions given political will on the part of all member States. They also favoured the establishment of a group of experts to consider various aspects of the prevention of an arms race in outer space. The consideration of these and other issues would not, in their view, preclude the search for comprehensive solutions of the type envisaged in documents

CD/476 and CD/274. They expressed their conviction that the Conference could and should make a significant contribution towards the achievement of this objective.

14. Stressing that arms control and disarmament are not ends in themselves but means to a more important goal, that of enhanced security, some delegations noted that a large majority of space activities consists of military activities and noted that many such activities clearly had stabilizing roles and were vital components of deterrence and strategic stability. They noted that military systems deployed in space accomplished a variety of support missions and that they played a vital role in the strategic relationship of the two major Powers. They considered that, while the Ad Hoc Committee had had very substantial discussions, fundamental divergences persisted and the work was still in an exploratory phase. In their view, the prevention of an arms race in outer space was linked to and should take into account progress in other fields of arms limitation and disarmament, in particular the reduction of nuclear weapons. These delegations continued to underline the importance of issues relating to verification of and compliance with existing and future agreements and held that those issues required a more thorough examination. They also stressed the need for detailed information on national space programmes that had military implications. One delegation pointed out that the aim of the Committee should be to consider different approaches to the subject and to make sure that each participant understood the concerns and the interests of other States. That delegation did not believe that the Committee was in a position to begin negotiations as there were still too many unanswered questions. When negotiations come, they might not be in this forum since some issues, such as ballistic missile defence, were better dealt with bilaterally. It noted that some other delegations maintained that the conclusion of agreements to prevent an arms race in outer space was a matter of great urgency. The delegation believed that improved security must be purusued whether on earth or in space but it did not believe that the threat of an arms race in outer space was imminent. It also noted that the predicted proliferation of anti-satellite weapons had not happened.

15. Some delegations reckoned that discussions on definitions so far had been unsatisfactory and had shown that without consensus about the basic assumptions and without agreement upon the technical, juridical and doctrinal meaning of a definition, any attempt to achieve clarity in conformity with intended treaty obligations would remain academic. The view was expressed

that the Committee should discuss the existing military activities in space and look at the value and utility of such activity. Among other pertinent subjects for discussion, interference with the functions of space objects and the implications of the potential for such interference, re-usable launchers and their implications; the expansion of industry and commerce into outer space and its relationship with any future arms control initiatives were mentioned.

16. One delegation also stated that before the Ad Hoc Committee could properly entertain proposals for future initiatives on the prevention of an arms race in outer space it should first examine in detail which issues before it were relevant to its work and if the agreements already in existence contribute to preventing an outer space arms race. The same delegation noted that its country remained committed to multilateral approaches to arms limitations and disarmament where appropriate and it had made a serious attempt to identify measures that might be feasible and desirable as the basis for negotiating further multilateral arms control agreements that apply to outer space, but it had identified no appropriate measures that would enhance international security and were both feasible and verifiable. This delegation also noted that a fundmental framework must first be established on a bilateral level. It rejected the concept of "space strike weapons" and phrases "dedicated" and "non-dedicated anti-satellite systems" for being part of a selective approach which did not give an accurate picture of the threats against space objects and of the military and strategic situation relevant to outer space.

17. One delegation held that outer space, as the common heritage of mankind, should be used only for peaceful purposes and in the interests of human welfare. It considered that to prevent an arms race in outer space has become a new priority item in the field of disarmament. That delegation had always held that the effective way to prevent an arms race in outer space was to ban all types of space weapons. In the view of this delegation, the major space Powers, which bore a special responsibility for the prevention of an arms race in outer space and were the sole countries to possess and continue to develop space weapons, should commit themselves not to test, develop, produce and deploy space weapons and to destroy all their existing space weapons. It held that on this basis, an international agreement or agreements on the complete prohibtion of space weapons could be concluded through negotiations. It also stressed that it was imperative to start substantive negotiations on the

prevention of an arms race in outer space as soon as possible. That delegation believed that, though the work of the Ad Hoc Committee had scored some achievements, it had failed to make substantive progress. It was of the view that at the present stage, work in the Conference on Disarmament should centre on the solution of the problems that were directly related to preventing the "weaponization" of outer space.

18. Some delegations maintained that they had been and continued to be supporters of using outer space for peaceful purposes and implementing far-reaching and comprehensive initiatives aimed at the prevention of an arms race in outer space, which would include such important measures as prohibition of ASAT systems and space-to-Earth arms, and creation of a system of control over the non-placement of arms in outer space. One delegation reiterated its conviction that a world secure for all could not be built on the basis of extending the arms race to new spheres, in particular to outer space. Weaponization of space would lead to a dangerous rivalry in the field of space arms, which would have irreversible consequences for international peace and security and for maintaining strategic stability. It would impart a qualitatively new nature to the arms race, would undermine existing agreements and endanger the disarmament process as a whole. Of greatest importance for preventing such an outcome was strict compliance with the ABM Treaty.

B. Existing agreements relevant to the prevention of an arms race in outer space

19. The Ad Hoc Committee recognized that activities in the exploration and use of outer space should be carried out in accordance with international law. The importance of the principles and provisions of international law relevant to the prevention of an arms race in outer space was stressed.

20. Some delegations underlined the central role that the Charter of the United Nations played in the legal régime applicable to outer space. In that connection they stressed the special significance of paragraph 4 of Article 2 and Article 51. They noted that Article 2(4) prohibits the threat or use of force against the territorial integrity or political independence of any State. Complementing Article 2(4), Article 51 permits States to exercise their inherent right of individual or collective self-defence. These delegations thus concluded that when read together, these two Charter provisions strictly prohibit the use of force in all instances except self-defence. Accordingly, they believed that these provisions afforded a substantial degree of protection to space objects. Other delegations

reaffirmed the importance of the United Nations Charter, but, at the same time, reiterated that its provisions concerning the non-use of force could not, in and of themselves, be sufficient to preclude an arms race in outer space - just as they had not done so on Earth - since they did not address the question of the development, testing, production and deployment of weapons in space. These delegations recalled that the legal provisions of these articles had not diminished the universally-recognized need to negotiate disarmament agreements and even to ban specific types or whole classes of weapons, such as biological, nuclear, chemical and radiological weapons. In their view, Article 51 of the Charter could not be interpreted as justifying the use of space weapons for any purposes or the possession of any type of arms based on the use of space weapons. They also stressed that Article 51 could not be invoked to legitimize the use or threat of use of force in or from outer space. In this context, they noted that the objective agreed upon by consensus, both at multilateral and bilateral levels, was not to regulate an arms race in outer space but to prevent it, and that any attempt to justify the introduction of weapons in that environment contradicted that objective. This was, they maintained, all the more true because they believed it had been officially stated that there was mutual recognition in the bilateral negotiations between the United States and the Union of Soviet Socialist Republics that there is no absolute weapon - offensive or defensive. Accordingly, these delegations believed that in the context of the work of the Ad Hoc Committee the value of statements on the existing degree of protection to space objects should be assessed against their relevance to the achievement of the common objective to prevent an arms race in outer space. It was noted, on the other hand, that the reference to the prohibition of the use or threat of use of force as reflected in the preamble of the United Nations Charter was explicit and applied without restriction to all activities in outer space.

21. Another delegation stated that Article 2(4) of the Charter constitutes the point of departure for the international efforts aimed at preventing an arms race in outer space, because any act conducive to turn outer space into the scenario of an arms race constitutes a contravention of that provision, in the sense that the action of developing, producing and stationing weapons in space configurates a threat to the territorial integrity and the independence of all the other States Members of the United Nations. That delegation also stated that the right to legitimate self-defence enshrined in Article 51 of the Charter does not authorize any State to extend its military power into

space nor to use that environment as an arena to station its instruments of destruction, endangering the security and integrity of other States. It was also stressed by that delegation that in the opinion of the majority of countries, the Outer Space Treaty has a serious juridical vacuum, inasmuch as it does not cover other weapons, different to nuclear weapons and weapons of mass destruction, which are being developed for their incorporation in strategic defence systems. The same delegation further stressed that as a result of this vacuum, the Outer Space Treaty has not been sufficient to stop certain countries from initiating activities which may lead to the launching of an arms race in outer space. That delegation concluded that the Treaty does not contain provisions capable of putting a check to the effort currently being deployed to create elements of a strategic defence which will work from space, or will accomplish their missions in space.

22. Some delegations pointed out that as a result of the work accomplished in the past years, the Committee had at its disposal a sound analysis of the existing international law of outer space and a number of constructive proposals. Three delegations belonging to the group of socialist States submitted a document entitled "Survey of international law relevant to immunity and protection of objects in space and to other basic principles of outer space activities" (CD/933-CD/OS/WP.34). The document was aimed to show that, though the existing legal régime for outer space was adding to the protection of space objects, it did not guarantee all-embracing protection and it was crucially important that all States strictly comply with these agreements. Further codification and development of existing rules of international law relating to the protection of space objects would contribute an essential step towards preventing an arms race in outer space. These additional measures could encompass steps providing for building confidence and for prohibiting the weaponization of outer space.

23. One delegation pointed out that the legal régime in outer space continued to be the object of considerable interest and concern as many nations had not ratified or acceded to existing international agreements pertaining to outer space, thus raising questions regarding the extent and coverage of that legal régime. Despite widespread recognition that the current régime placed some legal restraints on most types of weapons in outer space, there remained concern that the task of precluding the introduction of destabilizing military options into space had not been completed. The purpose of work in the legal field should be to analyse the arms control and disarmament implications of

conflicting positions with a view to promoting a commonly-shared understanding of what existing treaty law and customary principles of law say in terms of prohibition of certain activities in outer space. This exercise would also have to focus on the question to what extent, as far as space is concerned, there is a need to go beyond existing treaty law and broader norms regarding the use of force in general.

24. A number of delegations, while acknowledging the value of the restraints imposed by the existing legal régime, which placed some barriers to the arms race in outer space through limitations on certain weapons and military activities in that environment, reiterated that in some areas there were loopholes. They noted that the 1967 Outer Space Treaty, because of its limited scope, left open the possibility of the introduction of weapons in space, other than nuclear weapons or other weapons of mass destruction, in particular anti-satellite weapons and space-based anti-ballistic missile systems. Furthermore, in their opinion, current developments in space science and technology, coupled with on-going military space programmes, underscored the inadequacy of existing legal instruments to prevent an arms race in outer space. They, therefore, held that there was an urgent need to supplement and amplify the existing legal régime and that, consequently, it was imperative to strengthen, improve and broaden the legal régime applicable to outer space with a view to the effective prevention of an arms race in outer space in all its aspects. Some other delegations stressed that as long as the analysis of the existing legal prescriptions remained restricted to the continuously repeating and deploring of deficiencies and lacunae without attempting to agree upon the real need for and adequate approach to the improvement and completion of a comprehensive legal régime, the work of the Committee would remain selective, deliberately incomplete and without substantial reward.

25. Some other delegations stressed that there was already a body of international law governing activities in outer space which provided a considerable measure of prohibition and protection. They believed it was important to have a full understanding of the scope of the existing legal régime, of the inter-relationship of its provisions and of aspects related to adherence, compliance and enforcement. Some of those delegations believed that the examination of that régime in the Ad Hoc Committee confirmed that there continued to be a need to arrive at a common understanding of what were permitted and prohibited uses of outer space.

26. In addition to sharing some of the views reflected in the first two sentences of the above paragraph, one delegation reiterated that the existing legal régime for arms control in outer space was equitable, balanced and extensive. It placed some legal restraints on virtually every type of weapon in outer space. It had been far more successful in preventing an arms race than any comparable legal régime on Earth. That delegation viewed this régime as wide-ranging and logical, not full of gaps and holes, but containing mutually reinforcing legal constraints, not ineffective but practical and workable. In its opinion, any problems associated with the existing legal régime would be inherent in any legal régime for arms control in outer space, no matter how much it was developed, elaborated or amended. A legal régime by itself was not sufficient to prevent an arms race in outer space because compliance with, enforcement of and participation in that régime were needed. Apart from that, this delegation believed that many of the proposals noted or listed in CD/905 and CD/908 were founded on an inadequate appreciation or a flawed understanding of the existing legal régime. It considered that such proposals were either redundant or perhaps even prejudicial to the legal controls that were already in place. One delegation also noted that, contrary to the apprehensions noted about "current developments in space science and technology, coupled with ongoing military space programmes," great advances in data processing, sensors, microelectronics, materials, propulsion, and directed energy have opened a window to a potentially safer era, with a growing likelihood of effective, non-nuclear defences against ballistic missiles. This delegation stated that if these advances can be fully developed, the nuclear or chemically-armed ballistic missile, by far the most dangerous instrument of war to use the medium of space, would no longer be an "absolute weapon".

27. Some delegations expressed serious concern that one space Power went ahead with its strategic defence programme by having conducted a number of experiments which would lead to growing mistrust and might intensify the arms race. Some delegations noted that from the above commentary it could be concluded that no other country had any programme comparable to the strategic defence programme.

28. One delegation further stated that such a conclusion would be far from correct, as one other major space Power has also been pursuing since the 1960s its own research and experimental work into advanced technologies for strategic defence, which are precisely the same types of technologies being

researched and experimented with in the strategic defence programmes of this delegation's country. This same delegation further noted that in November 1987, a statement was made by high level officials of the other major space Power that practically their country was doing all that this delegation's country was doing in this field. These officials also stated that their country would not build or deploy such a strategic defence programme. This same delegation believes, however, that it is capabilities rather than declared intentions that count. This same delegation also noted that one other major space Power is also doing far more than his own country on strategic defences.

29. Many delegations however expressed concern about all such development efforts.

30. In this connection one delegation pointed out that the country it represents has no SDI-type programme comprising space-based ABM components, that it has no intent to deploy "strategic defence" in space and calls upon the other major space Powers to act in the same way.

31. Some delegations pointed out that agreements to prevent an arms race in outer space could be verifiable at present and that the rapid development of technology was helpful in devising increasingly reliable technical means of verification. These delegations also believed that the process of consideration of and negotiations on specific proposals to prevent an arms race in outer space would reveal which terms might need to be clarified or even strictly defined, in order to eliminate any unacceptable degree of uncertainty or ambiguity that might exist in the interpretation of their meaning.

32. A view was expressed by some delegations that the Committee should come to a common understanding of individual legal instruments relevant to outer space and the extent of the coverage both of single instruments and in the inter-relationship. According to this view, this would require reaching agreement on the meaning of basic terms, such as peaceful uses, militarization and stabilizing and this could, in turn, assist the Committee in determining what constituted permitted or prohibited uses of space, following which the Committee could, for example, examine the scope for identifying relevant thresholds of intolerance in, for example, satellite functions. In the opinion of those delegations the Committee should be able to identify and reach agreement on a range of measures to ensure better compliance with the existing legal régime and compile a list of confidence-building measures

relevant to outer space. Apart from broadening participation in existing legal instruments, in their view the Committee could look into the possibility of identifying measures for greater transparency of military-related uses of space, which would make a valuable contribution to the collective search for creating better conditions for political stability.

33. Various delegations believed that the present legal régime governing outer space was no longer adequate to guarantee the prevention of an arms race occurring in outer space. It was noted that General Assembly resolution 43/70 recognized the urgency of preventing an arms race in outer space and requested the Conference on Disarmament to undertake negotiations for the conclusion of binding agreement or agreements, as appropriate. While recognizing the significant role played by that régime and the need to consolidate and strengthen it and its effectiveness, several delegations called for the total prohibition of the development, production, stationing, stock-piling and use of space weapons and the destruction or transformation of existing weapons.

34. One delegation maintained that the existing international treaties on outer space were characterized by the specific situation at the time of their adoption and were therefore limited from an historic perspective. These international legal instruments, despite their significance, could not longer meet contemporary needs and they were no longer adequate for the prevention of an arms race in outer space. They had no clear-cut provisions on the banning of the arms race in outer space, did not prohibit all space weapons, and contained no provisions on the demilitarization of outer space.

35. One delegation responded that because of the primary set of restraints in existing international legal instruments, those weapons that pose the greatest threat are covered by the legal régime. This delegation further noted that there is no indication that any activities currently underway in space are detracting from stability, but rather that current activities are contributing to stability by enhancing capabilities for deterrence and verification. This delegation stated that the most threatening situations for international peace remain on earth.

36. Many delegations were of the view that all States, in particular the space Powers, should become parties to the multilateral treaties in force that contained provisions relevant to the prevention of an arms race in outer space, in particular the 1963 Partial Test Ban Treaty and the 1967 Outer Space Treaty.

C. Existing proposals and future initiatives on the prevention of an arms race in outer space

37. Some delegations, stressing the urgency of forestalling the introduction of weapons in space, discussed comprehensive proposals for the prevention of an arms race in outer space, such as those calling for a treaty prohibiting the use of force in outer space or from space against Earth, a treaty prohibiting the stationing of weapons of any kind in outer space and amendments to the 1967 Outer Space Treaty. In this context, some of these delegations considered that the various definitions of space weapons that had been put forward provided a good basis for working towards a comprehensive prohibition of weapons that were not yet outlawed under the existing legal régime. They also suggested that with the assistance of experts it should be possible to formulate a definition that would not only describe space weapons but also list their components.

38. A proposal was submitted (CD/OS/WP.37) to amend Article IV of the Outer Space Treaty so as to make its prohibition applicable to any kind of weapons and to contemplate the negotiation of an Additional Protocol for the purpose of prohibiting the development, production, storage and deployment of anti-satellite-weapons systems which are not stationed in outer space. According to that proposal those amendments to the Treaty would be complemented by a second additional protocol to deal with the verification system to ensure faithful compliance with the obligations assumed by the States Parties which may be a mixed system based principally on a multinational or international approach and on a national approach in accordance with the means of verification available to each State Party.

39. One delegation expressed the view that the general objective should aim at establishing one legal régime for outer space as well as the Moon and other celestial bodies. It maintained that this could only be realized through a clear-cut provision declaring that outer space shall be used exclusively for peaceful purposes.

40. One delegation recalled that the previous year it had submitted a proposal contained in document CD/851 seeking to amend Article IV of the Outer Space Treaty. That delegation stressed that that proposal has, as its point of departure, the recognition, largely shared by a vast sector the Conference and reflected in previous reports of the Ad Hoc Committee that the Outer Space Treaty has an important juridical vacuum and is inadequate to prevent an arms race in outer space because it does not prohibit the stationing in space of

weapons other than nuclear and mass destruction weapons. It maintained that those other weapons not covered by the Outer Space Treaty are denominated in this proposal and currently they give rise to the deepest concern because they are the subject of research and development, with a view to being incorporated into strategic defence systems.

41. Some other delegations were not in favour of such approaches on the grounds that they did not give an accurate picture of all the threats confronting space objects and overlooked other significant factors of the military and strategic situation relevant to outer space. These delegations also held that proposals should be examined bearing in mind questions relating to compliance, verifiability, practicability and utility. One delegation held that it would be undesirable if proposed initiatives restricted the development of peaceful industry in space and that proposals therefore should be examined from this perspective as well.

42. One delegation suggested that States parties to multilateral treaties related to activities in outer space could make declarations recognizing the compulsory jurisdiction of the International Court of Justice in all legal disputes concerning these agreements. In the view of that delegation such a declaration could be accompanied by a strong appeal to States not parties to these treaties to adhere to them as soon as possible.

43. Many delegations, noting that existing legal restraints whether bilateral or multilateral did not preclude the emergence of non-nuclear ASAT weapons, stressed the importance of a ban and limitations on anti-satellite weapons. Various delegations further elaborated previously advanced proposals. Thus, one delegation made an expert presentation and submitted a document (CD/927-CD/OS/WP.33) on basic provisions of a treaty on ASAT components and ways of verifying their prohibition, which contained comments on the problems of definitions and categorization of conventional ASAT weapons and indicated possibilities for effective verification of future agreements. The document also contained the following recommendations: advance notice of launch activities; on-site inspection of objects to be launched; prohibition of experiments, including collisions or explosions of space objects; no high velocity fly-by tests; observance of keep-out zones/minimum approach distances; advanced notice on manoeuvering activities of space objects; essentially improved registration and catalogue of space objects, including small debris and international exchange of data of space objects. Another delegation submitted another document entitled "Review of proposals and

initiatives of the States members of the Conference on Disarmament under agenda item 5", prepared on the basis of the official documents and records of the United Nations General Assembly and the Conference on Disarmament, as well as on statements made by the member States (CD/905-CD/OS/WP.28). The delegation hoped that the review would promote in-depth analysis of their complex political, military, scientific, technical and international legal problems, taking into account the necessity of examining avenues which could lead to future multilateral negotiations in the Conference on Disarmament aimed at the prevention of an arms race in outer space. Another delegation reiterated that it has all along stood for the banning of all space weapons, which naturally includes ASAT weapons. In the view of this delegation, in order to facilitate consideration and negotiation of the issue of the prevention of an arms race in outer space, the banning of ASAT weapons, as a first step, has a certain practical significance.

44. One delegation highlighted some of the legal issues surrounding the establishment of keep-out zones in outer space. With reference to Articles I, II and IX of the Outer Space Treaty, it pointed out that there was today agreement that the two principles of freedom and non-appropriation in relation to outer space existed independently of the Treaty, having already acquired the status of customary rules of international law. This delegation was joined by some others in further noting that the relevant provisions of the Treaty reinforced the principle that exclusive rights did not exist in outer space even though the practical capabilities of some users might be greater than others. All of these delegations believed that although the situation would be different in the case of a multilateral agreement regarding keep-out zones the fact was that the unilateral declaration of keep-out zones, having specific spacial dimensions would be equivalent to an attempt to exercise sovereignty and would be in breach of existing international law.

45. One delegation introduced a working paper (CD/OS/WP.36) containing proposals for urgent measures to prevent an arms race in outer space. It pointed out that both major space powers had devoted considerable resources to research on ballistic missile defences (BMD) and the issue of BMD was of relevance also to the Conference on Disarmament, since all States would be affected by the destabilizing implications. Furthermore, this delegation stated that since the major space Powers had tested dedicated ASAT systems, other States, too, could consider strengthening their military capacities by acquiring ASAT capabilities and that the spread of advanced missile technology

could promote such a development. It thought that the risk of an arms race in outer space could be partly attributed to the fact that the existing body of international law was not sufficient to prevent such a development. In the view of this delegation, various bilateral agreements between the two major powers indicated the vital stabilizing function attributed by them to securing, inter alia, the protection of early warning satellites. It suggested that the existing de facto moratorium by the two major space Powers on testing of dedicated ASAT systems should, as an immediate measure, be formalized and that production, as well as deployment of dedicated ASATs, be prohibited without delay and that such existing systems be dismantled. Furthermore, the delegation proposed that an agreement should be negotiated to ban the testing in an ASAT mode of various types of non-dedicated systems. The delegation stated that the question of verification of compliance with the proposed measures was of crucial importance and should be systematically studied by experts in the field, with on-site inspection, satellite tracking and data collection being examples of methods of verification. It believed that the establishment of an international system for monitoring satellites should be the focal point of studies by experts. The delegation had earlier proposed the setting up of an expert group under the auspices of the Conference on Disarmament. It considered that the proposals concerning confidence-building measures, including rules of the road, which had been made in the Conference, and more recently, by experts in the Committee, should be given systematic consideration. It maintained that because of the risks of vertical and horizontal proliferation of dedicated and non-dedicated ASAT capabilities, as well as the dangers posed by possible non-intentional harmful interferences with satellites, the Committee should, as of its next session, assume a new sense of direction to promote the task before it. The proposals made by the delegation were supported by many delegations.

46. Another delegation noted that its objective in bilateral negotiations was to manage a stable transition to increased reliance on effective defences that threaten no one. It further stated that, together with a 50 percent reduction in strategic weapons, a robust defence against ballistic missiles would enhance strategic stability by rendering a first strike ineffective. This delegation also noted that in the ASAT area another significant space Power has had the operational capability to attack satellites in near-Earth orbit with a ground-based orbital interceptor. This delegation noted that his country did not possess a comparable operational capability.

47. In this connection another delegation stated that its country did have a land-based ASAT system, the testing of which was not complete and which, therefore, could not be called operational. In 1983 this country declared a unilateral moratorium on putting into space anti-satellite weapons of any type, which it continues to observe. It had proposed several times to the other major space Power that they should negotiate a mutual ban on the development, testing and deployment of ASAT systems and eliminate such systems that these Powers possessed. However, this proposal was not accepted.

48. Some delegations considered that there were inherent difficulties in proposals for a ban or limitations on ASAT weapons and referred, in particular, to the diversity and characteristics of the potential threats to space objects, the existence of weapon systems that had an ASAT capability, the limitations of various notions for purposes of defining and prohibiting ASATs, problems of verifiability and the close link between questions relating to ASATs and matters under consideration in the bilateral negotiations. Beyond that, one delegation also elaborated on the various legal restraints that the existing legal régime already imposed on the nature, deployment and use of ASATs.

49. Various delegations were of the view that consideration should be given to the questions of the protection of satellites and a number of proposals and ideas were examined. Some delegations considered that attempts to establish a protection régime based on a categorization of satellites would give rise to many difficulties and advocated the granting of immunity to all space objects without exception, with the understanding that space weapons would be subject to an unconditional ban. Other delegations were of the view that certain distinctions should be made for the purpose of immunizing satellites and various possibilities were mentioned in terms of their functions, purposes and orbit. In this connection, some delegations held that a protection régime called for improvements in the system of registration of space objects to permit the identification of the nature and missions of protected space objects. Some delegations stressed in particular that immunity should not be extended to satellites that perform military missions.

50. One delegation, in introducing a working paper (CD/OS/WP.35), made a presentation at the expert level on the use of outer space for monitoring and verification and on satellite immunity. It first considered that the general conditions for the prevention of an arms race in outer space ruled out measures, such as a comprehensive ASAT ban, which would be delusive or

unsuitable for multilateral treatment. It then recalled its proposal for an agency for the processing and interpretation of space images, as a first phase of the international satellite monitoring agency (ISMA) proposed at SSOD-I, underlining that such an agency for the processing and interpretation of space images was not intended to be an embryo of a verification system of universal competence. It finally described the principle of non-interference with non-aggressive space activities as the basis for securing the legal immunity of satellites. The implementation of such a principle would, in the view of that delegation, require a strengthening of the 1975 Registration Convention as well as the elaboration of a space code of conduct. In order to manage the information on the characteristics of space objects, a computerized trajectography centre could be established to reconcile the constraints of confidentiality with the gathering of all the necessary information on satellites' trajectories. This centre would be the instrument of a confidence-building régime.

51. Another delegation pointed out that placing at the disposal of the international community the results of national satellite monitoring would be a major confidence-building and transparency measure in relations among States, a measure of international verification. In the view of that delegation the possible use of space monitoring would provide the international community with necessary information in the field of verification of the majority of multilateral agreements on confidence-building measures, limitation of armaments and disarmament, which were already in force or being elaborated, as well as for verification of compliance with the agreements on the settlement of regional conflicts and ending local wars. This delegation noted that at the first stage, in the course of the implementation of the tasks before space monitoring means, States possessing such means could provide the international community with the information within a 5-metre resolution limit or less. It was also declared that this State could agree to lift totally the limitations on the level of resolution of the information provided for the international community. This delegation further suggested to set up a group of experts, as proposed by another delegation (CD/OS/WP.30) and assign it the task of preparing a report on the perspectives of satellite monitoring to be submitted to the Conference on Disarmament.

52. Various other possible measures relating to the security of satellites were mentioned, such as multilateralizing the immunity provided for in certain

bilateral agreements to satellites that served as national technical means of verification, a "rules-of-the-road" agreement, the reaffirmation and further elaboration of the principle of non-interference with peaceful space activities and the elaboration of a code of conduct in outer space to prevent the risks and fears that could arise from certain manoeuvres of space objects.

53. One delegation noted that international legal instruments already existed to ensure the immunity of satellites. This delegation stated that these instruments prohibited the use of force and the threat of the use of force against satellites except in cases of self-defence. This delegation noted, however, that these instruments were not intended to compromise the inherent right of sovereign States to take adequate measures to protect themselves in the event of the threat or use of force.

54. In the view of a number of delegations, it was imperative to create a coherent set of confidence-building measures in relation to activities in outer space and this could be achieved by initiating a process of data exchange (along the lines of CD/OS/WP.25). Stressing the non-compulsary character of possible measures, one delegation subjected to detailed analysis several articles of the Outer Space Treaty and Registration Convention, which contained "points of contact" or "starting points" capable of serving as a framework for this set of measures.

55. One delegation expressed its conviction that its concept of a "rules-of-the-road" agreement would be a useful contribution to the creation of a solid future space order as well as the prevention of an arms race in outer space. In its view, the main components of that agreement would be: restrictions on very low altitude overflight by manned or unmanned spacecraft; new stringent requirements for advanced notice of launch activities; specific rules for agreed and possibly defended keep-out zones; grant or restriction of the right of inspection; limitation on high-velocity fly-bys or trailing of foreign satellites; established means by which to obtain timely information and consultations concerning ambiguous or threatening activities. More detailed views on those components were contributed by an independant expert from that country.

56. Many delegations focussed on the importance of transparency in the activities of States and of accurate information on how outer space was being used. The view was expressed by some delegations that there was a need for expert examination of the parameters on which information should be provided and it was suggested that a group of experts be set up for that purpose. Some

delegations believed that strengthening of the Registration Convention would be a valuable confidence-building measure, and they discussed various ways and means of improving the system of notification established thereunder with a view to assuring the availability of timely and adequate information on the nature and purposes of space activities.

57. In this connection, one delegation suggested the concept of separate protocol negotiated in the Committee on exchange of information on and notification of outer space activities. The same delegation proposed some verification measures which could include verification of notified launches on the basis of mutual invitation or ad hoc mutual inspection without the need of any international structures. This delegation considered that the Conference might adopt measures not having the character of legal documents but expressing a political commitment and contributing to building confidence, aimed at strengthening the international legal régime applicable to outer space and at increasing the transparency of outer space activities, particularly having military or military-related functions. The delegation suggested that these measures could be approved by the Conference as a part of its report on the work on item 5 (CD/941-CD/OS/WP.38).

58. Some delegations considered that questions concerning the Registration Convention fell within the competence of the Committee on the Peaceful Uses of Outer Space. In addition, one delegation noted that the Registration Convention had been negotiated to establish an international register of space objects to give practical effect to the Convention on International Liability for Damage caused by Space Objects and held that the introduction of changes in the former entailed a high probability of introducing confusion into the latter. Some delegations pointed out that the Registration Convention, as mentioned in its preamble, has to be seen in the context of developing international law governing the exploration and use of outer space and therefore had direct relevance to the work of the Ad Hoc Committee.

59. Referring to its proposal concerning declarations that weapons have not been deployed in outer space on a permanent basis, one delegation explained that the initiative was aimed at generating a climate of confidence in the field of the prevention of an arms race in outer space. Some delegations welcomed the proposal and recalled that the usefulness of unilateral declarations as confidence-building measures had been acknowledged in various fields of arms limitation and disarmament. Supporting this proposal, one delegation belonging to the Group of Socialist States recalled that it had stated that it would not be the first to place weapons in outer space.

60. Another delegation, commenting on the problems that in its view this proposal raised, noted that there were many kinds of weapon systems that could be used against space objects and that not all of them need necessarily be placed in space. It pointed out that those were the kinds of issues that were under discussion in the bilateral negotiations.

61. Some delegations recognized the importance of verification in the context of measures to prevent an arms race in outer space and considered that it should be possible to assure verification of compliance with agreements through a combination of national technical means and international procedures. Other delegations noted that the Outer Space Treaty contained some verification provisions. A number of delegations were of the view that verification functions should be entrusted to an international body to provide the international community with an independent capability to verify compliance. Reference was made to the proposed international satellite monitoring agency and to international co-operation for the use of Earth monitoring satellites for the verification of arms limitation and disarmament agreements.

62. One delegation, sharing the view that the key to efficiency in the field of disarmament, including that of outer space, was reliable verification, called for a comprehensive international verification system. In its view, among appropriate means and methods, a very important though not necessarily exclusive role should be attributed to reconnaissance satellites under the control of an international verification organization. That delegation underlined that the most urgent task in preventing an arms race in outer space was to create safe conditions for monitoring from space by means of a comprehensive treaty regulating States' activities in outer space and prohibiting all means and methods being utilized on the surface, in the atmosphere or in outer space, which might be suitable to interfere with the normal functioning of satellites or to destroy them physically, whether they had been dedicated for monitoring civilian or military purposes or not. Results and data obtained by such a monitoring system should be freely available for all States Parties.

63. Delegations of the Group of Socialist States underlined that the non-deployment of weapons in space should be effectively verified. One of them pointed to the proposal to establish an international inspectorate with the aim to verify that no weapons were placed on objects launched into outer space. Some delegations stressed that the role and use of satellites for

purposes of verification should be explicitly recognized by international law. They considered it necessary to elaborate common standards, requirements and procedures for an international satellite data exchange for the purposes of verification, which could be done effectively at an expert level under the auspices of the Ad Hoc Committee. These delegations expressed their conviction that there are already the necessary preconditions for activating a multilateral negotiating process in the direction of the prevention of an arms race in outer space. These delegations believe that in the "outer space" area of disarmament a step-by-step advancement towards comprehensive agreements through implementing a range of specific and mutually acceptable measures promoting greater confidence and openness would open up promising prospects. Not being disarmament measures as such, they bring closer the possibility of implementing radical measures in the area of real disarmament and limitation of military activities. They eliminate mutual suspicion and mistrust and create a favourable atmosphere for a joint quest of compromise solutions on a non-confrontational basis. In this regard, these delegations expressed the view that a number of concepts of confidence-building measures introduced in the Ad Hoc Committee of the Conference on Disarmament on the prevention of an arms race in outer space are worthy of thorough examination, in particular, the proposal to elaborate a multilateral code of conduct of States in outer space ("rules-of-the-road") and the proposals on the use of space-based remote-sensing techniques for monitoring compliance of international agreements.

64. One delegation noted in a technical presentation that although inspection of satellites while they were on earth could contribute to verification, there were certain constraints on the conduct and effectiveness of such inspections and that observation of spacecraft while they were in space will become increasingly relevant to, and a fundamental aspect of, verification.

65. Several delegations noted that the problem of preventing arms in outer space could be considered on the basis of the proposal on the international space inspectorate. Some of them though that the related problem of detecting arms already put into space could be tackled on the basis of other proposals and the PAXSAT concept seemed to be worthy of attention. Some delegations believed that the establishment of an international space monitoring agency (ISMA) might in future become a crucial component of an international verification régime.

66. Further developing its proposal put forward at SSOD.III in 1988 one delegation expounded in a working paper (CD/OS/WP.39) its views on the creation of an international agency for space monitoring (ISMA). This delegation specified the eventual tasks, functions, possible structure and basic principles of ISMA, as well as requirements to future space monitoring systems of such an international body which would provide the international community with information on compliance with multilateral disarmament agreements and reduction of international tension, as well as carry out monitoring of the military situation in the areas of conflict. Along with military and political aspects, ISMA's activities could also have an economic effect in terms of supplying the interested States with satellite data for the benefit of their economic development. Having presented details of the step-by-step approach to the creation of ISMA, this delegation consented to the idea that an agency for the processing and interpretation of space images would be created at the first stage of such a process.

67. One delegation introduced a working paper (CD/945-CD/OS/WP.40) giving details of the proposal for an agency for the processing and interpretation of space images which it had presented to the third special session of the General Assembly devoted to disarmament in 1988. According to that proposal, such an agency would appear as the first phase of an International Satellite Monitoring Agency as proposed in 1978; it would serve to collect, process, interpret and distribute remote sensing data received from existing satellites, for the benefit of the international community, including the verification of disarmament agreements; it would also train photographic interpretation experts and conduct studies and research.

68. Some delegations maintained that issues relating to verification and compliance needed to be considered in greater depth. They noted that many elements of the existing legal régime applicable to outer space were relatively simple and stated that the more complicated and unwieldy any arms control agreement for outer space was, the more difficult it would be to verify compliance with it. They believed that verification and compliance issues were particularly sensitive and complex in this area because, on the one hand vital national security interests were at stake and, on the other, the vastness of space and the possibilities of concealment on Earth posed special problems.

69. Some delegations stated that verification of agreements not yet in existence, whose terms could not be anticipated, between parties still

unknown, were not generic tasks that could be given immediately to international entities. One of them further noted that the ABM Treaty, the Outer Space Treaty and the Registration Convention, constituted significant elements of this Treaty régime. This delegation believed, moreover, that ill-conceived arms control proposals actually might be dangerous and, if implemented, destabilizing because they could circumvent the development or compromise the effectiveness of strategic defence capabilities that threaten no one. This delegation further stated that although strategic deterrence is accomplished today primarily through reliance on the threat of offensive nuclear weapons, it believes that it would be preferable to rely instead on a balance of offensive retaliatory forces and defensive weapons which threaten no one. This delegation stated that it was convinced that defences that are militarily effective, survivable and cost effective at the margin, would create a safer future in which nuclear missiles become less and less capable of threatening destructive attack. Accordingly, this delegation noted that it would continue to explore the possibility that greater reliance on effective defences against ballistic missiles could, in the future, provide a safer, more stable basis for deterrence of war than the sole reliance on the threat of nuclear retaliation. This delegation also stated that to provide a fully effective layered defence, some elements of a ballistic missile defence system might need to be based in space. This delegation stated that the programme of research, development and testing related to this layered defence system was in full compliance with the 1972 ABM Treaty.

70. One delegation underlined that satellite monitoring, verification and communications for various purposes had nothing in common with development and testing of space arms' components for their eventual deployment in space. This delegation indicated that weaponization of outer space would inevitably lead to destabilization of the strategic situation, undermining of international security and atmosphere of confidence and co-operation, disruption of the prospects of further arms limitation and disarmament measures.

71. One delegation submitted a working paper on proposals and comments by Member States of the Conference concerning the participation of technical and other experts in the work of the Ad Hoc Committee (CD/OS/WP.30). The delegation suggested that experts, being members of the delegations, should participate in the Committee's work during a fixed period agreed upon by delegations in formal meetings of the Committee. It also held that it should

be possible to conduct informal open-ended expert discussions where experts could impart their knowledge and experience. It suggested that the following issues might require particular expert consideration: the increase of exchanges of data and information, going beyond the Registration Convention, which are needed to promote confidence-building in the area of space activities of States; "rules of the road" and a code of conduct for outer space; technical means and methods, including the use of satellite technology, for verification applicable to agreements on the prevention of an arms race in outer space; definitions and terminology under consideration in the Committee. A number of delegations continued to support the establishment of a group of governmental experts to provide technical expertise and guidance in the consideration of issues before the Ad Hoc Committee. In the view of these delegations the participation of several experts from different countries during the Summer Session of the Ad Hoc Committee was well received and some progress was achieved concerning the involvement of experts in the work of the Committee.

72. Some delegations welcomed the presence of several scientific and technical experts and noted with satisfaction the contribution they made in increasing the Committee's technical knowledge. In this context many delegations continued to support the establishment of a group of governmental experts to provide technical expertise and guidance in the consideration of issues before the Ad Hoc Committee.

73. Taking note of the contribution of scientific and technical experts, one delegation declared that as the Committee, at the current stage, was still exploring basic issues, philosophies and approaches, such expert contributions would, of necessity, be ad hoc and the need to increase the Committee's technical knowledge did not require the creation of an expert sub-group.

74. Some delegations noted with satisfaction that at the 1989 session the Ad Hoc Committee gave detailed consideration to concrete proposals for measures aimed at the prevention of an arms race in outer space. In their opinion, the examination of specific proposals had served to identify areas of possible convergence of views and thus provided a good basis for practical work on measures to prevent an arms race in outer space. Recognizing the complexity of the subjects under consideration and the need for further analysis, they held that relevant issues, including those concerning the legal régime applicable to outer space, could be addressed in the context of the consideration of specific proposals. These delegations stressed that after

four years of exchanging views on general and abstract issues, they considered that the phase of academic discussions had been amply exhausted and that it was necessary to concentrate every effort on the identification and development of measures aimed at fulfilling the central object of item 5 of the agenda, which is the prevention of an arms race in outer space. Those delegations were of the view that the Ad Hoc Committee should adopt an action-oriented approach to its mandate. They believed that the work of the Committee should continue in that direction.

75. Some other delegations were of the view that it was necessary to continue the examination of issues relevant to the prevention of an arms race in outer space that had not been sufficiently explored. They believed that much more detailed examination had to be done before it would be possible to undertake further activities. They considered that given the divergence of views on substantive and political issues, the broad scope of individual topics and the highly technical nature of the subject, the Committee had carried out work which contributed to a better understanding of the subject, but that much remained to be accomplished within the terms of the current mandate and programme of work. They also noted that much of the discussions held on proposals clearly showed the persistence of radically different approaches to the issues and that consensus did not exist on them. Consequently, the Committee needed to continue to study all the subjects covered by the mandate in order to establish a common body of knowledge and understanding, and common definitions of the scope and specific objectives of multilateral efforts for the prevention of an arms race in outer space.

76. Many delegations, while recognizing the importance of substantive consideration of relevant issues, emphasized that such consideration should be an integral part of the multilateral process of elaborating concrete measures aimed at the prevention of an arms race in outer space and that it could be done in the context of considering specific proposals. They reaffirmed that the objectives of multilateral efforts in this field are clearly set out in the Final Document of the first special session of the General Assembly devoted to disarmament. They also recalled the relevant resolutions adopted by the General Assembly. In this context, these delegations stressed the indispensable role of the Conference on Disarmament as the single multilateral negotiating body on disarmament and the inscription of item 5 on its agenda. Delegations of Socialist States shared the views expressed in this paragraph.

IV. CONCLUSIONS

77. There continued to be general recognition in the Ad Hoc Committee of the importance and urgency of preventing an arms race in outer space and readiness to contribute to that common objective. The work carried out by the Committee since its establishment and during 1989 contributed to the accomplishment of its task. The Committee advanced and developed further the examination and identification of various issues relevant to the prevention of an arms race in outer space. The discussions and the presentations by delegations contributed to a better understanding of a number of problems and to a clearer perception of the various positions. It was recognized once more that the legal régime applicable to outer space by itself does not guarantee the prevention of an arms race in outer space. There was again recognition of the significant role that the legal régime applicable to outer space plays in the prevention of an arms race in that environment and of the need to consolidate and reinforce that régime and enhance its effectiveness and of the importance of strict compliance with existing agreements, both bilateral and multilateral. In the course of the deliberations, the common interest of mankind in the exploration and use of outer space for peaceful purposes was acknowledged. In this context, there was also recognition of the importance of paragraph 80 of the Final Document of the first special session devoted to disarmament, which states that "in order to prevent an arms race in outer space, further measures should be taken and appropriate international negotiations held in accordance with the spirit of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and other Celestial Bodies". The Ad Hoc Committee gave a preliminary consideration to a number of new proposals and initiatives aimed at preventing an arms race in outer space and ensuring that its exploration and use will be carried out exclusively for peaceful purposes in the common interest and for the benefit of all mankind.

78. It was agreed that no effort should be spared to assure that substantive work on this agenda item will continue at the next session of the Conference. It was recommended that the Conference on Disarmament re-establish the Ad Hoc Committee on the Prevention of an Arms Race in Outer Space with an adequate mandate at the beginning of the 1990 session, taking into account all relevant factors, including the work of the Committee since 1985.

CONFERENCE ON DISARMAMENT

CD/976
9 March 1990

Original: ENGLISH

Mandate for an Ad Hoc Committee under item 5 of the agenda of the Conference on Disarmament entitled "Prevention of an Arms Race in Outer Space"
(Adopted at the 541st plenary meeting on 8 March 1990)

In the exercise of its responsibilities as the multilateral disarmament negotiating forum in accordance with paragraph 120 of the Final Document of the First Special Session of the General Assembly devoted to disarmament, the Conference on Disarmament decides to re-establish an Ad Hoc Committee under item 5 of its agenda entitled "Prevention of an Arms Race in Outer Space".

The Conference requests the Ad Hoc Committee, in discharging that responsibility, to continue to examine, and to identify, through substantive and general consideration, issues relevant to the prevention of an arms race in outer space.

The Ad Hoc Committee, in carrying out this work, will take into account all existing agreements, existing proposals and future initiatives as well as developments which have taken place since the establishment of the Ad Hoc Committee, in 1985, and report on the progress of its work to the Conference on Disarmament before the end of its 1990 session.

GE.90-60324/2949a

CONFERENCE ON DISARMAMENT

CD/1015
CD/OS/WP.42
18 July 1990

ENGLISH
Original: SPANISH

ARGENTINA

Working paper

Proposals for the strengthening of the régime established by the Convention on Registration of Objects Launched into Outer Space

I.

The use and exploration of outer space are governed by a body of law that has developed in parallel with the advances in science and technology that have given man growing access to space.

This increasing presence of man in space has not been limited to scientific or economic activities, but has been strongly apparent in the area of activities directly or indirectly linked to the military sphere.

This has required adaptation and analysis of the existing legal instruments in the light of those military activities, thereby giving rise to debate as to the legal interpretation of principles common to the use of space, such as those of peaceful use, non-interference in the use and exploration of space, etc.

Irrespective of the interpretation given to those principles, it is an undeniable fact that the possible extension of the arms race to space is a reality requiring, at both the bilateral and the multilateral levels, consideration and action in order to avoid the adverse effects that would result from the indiscriminate militarization of space.

II.

The efforts are, as indicated above, being made both bilaterally, between the major space Powers, and multilaterally, through the action of the United Nations General Assembly (Committee on the Peaceful Uses of Outer Space, COPUOS) and the deliberations of the sole multilateral disarmament negotiating body, the Conference on Disarmament.

As regards the bilateral efforts, to the existing agreements of special relevance to the militarization of space (the Treaty on the Limitation of Anti-Ballistic Missile Systems, or ABM Treaty) must be added the negotiations currently in progress within the framework of the Space and Defence Talks, the objective of which is precisely the strengthening of stability in the military uses of space in accordance with the criteria agreed by the States participating in that negotiating process.

As regards the Conference on Disarmament, the Ad hoc Committee on Prevention of an Arms Race in Outer Space provides, in its programme of work, both for the analysis of the existing legal régime (item 2) and for the study of additional proposals and initiatives (item 3).

These two items are intrinsically linked, since in the case of a body like the Conference on Disarmament, whose objective is to negotiate agreements on the issues it studies, the exegesis of the rules in force must have a practical purpose. In other words, analysing the existing legal régime is, in the Conference on Disarmament, an exercise aimed at evaluating the scope of the rules that we have today, with a view to determining:

(a) Whether those rules are suited to the emerging needs of the task of preventing an arms race in outer space;

(b) Whether they can be adjusted or reinforced to make them more suitable for that purpose;

(c) Whether there are any important lacunae that would require the elaboration of new agreements to regulate areas of present or future space activity.

III.

The work of the Conference on Disarmament, after five years of general and substantive consideration of the subjects connected with the prevention of an arms race in outer space, has demonstrated the existence of what, although they converge in a common objective of preserving space from militarization, are separate schools of thought.

One of these schools is that which approaches the problem from a general or comprehensive point of view, which has identified certain areas that, in its opinion, require the presence of further specific rules or the amendment of existing rules to the same end. Into this category fall proposals like those concerning the elaboration of treaties completely or partially banning anti-satellite weapons, proposals for the amendment of article IV of the Outer Space Treaty, or for a convention on the non-use of force in space, etc.

The common denominator of these proposals, whether of those that propose new legal instruments or of those that prefer the amendment of existing agreements, lies in their global approach to the problem of preventing the militarization of space and, in keeping with that, the proposing of comprehensive measures to limit or prohibit certain developments or activities deemed harmful or potentially destabilizing.

The other school of thought is that which, while sharing with the first a similar interpretation of the space problem, considers it feasible, in view of the persistence of differing interpretations of most of the measures of a global nature to have been proposed, to adopt a partial or specific view, concentrating its efforts on partial measures that are not directly classifiable as measures of disarmament or arms limitation, but are useful inasmuch as they contribute in a gradual manner to the same goal.

The measures belonging to this school of thought are those that have been defined as confidence-building measures.

They include such proposals as those concerning the drawing up of a code of conduct for outer space or systems for protecting satellites or ensuring their immunity, etc.

Among the existing agreements, one that has a practical nature of great value in the field of confidence-building measures and transparency as regards State's activities is the 1975 Convention on Registration of Objects Launched into Outer Space.

This legal instrument was drawn up following the direct precedent established by resolution 1721 A (XVI) of the United Nations General Assembly, the reference in space matters, since it was adopted unanimously by the Assembly, thereby making it de facto a rule of law recognized by all States. 1/

In the resolution, the General Assembly urged launching States to provide information on their launches and also requested the Secretary-General to maintain a public register containing that information. Although neither resolution 1721 nor, later, resolution 1962 (XVIII), known as the "Declaration on Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space", includes specific references to the military uses of space, both indicate that space activities must be carried out for peaceful purposes.

The Convention on Registration of Objects Launched into Outer Space, then, responded to the gradual elaboration of international law applicable to outer space by continuing the process begun in the above-mentioned General Assembly resolutions and spelling out in detail some aspects of subsequent instruments, particularly the Outer Space Treaty (1967) and the Convention on International Liability for Damage Caused by Space Objects (1972). The first of those instruments is linked to the Registration Convention through the mention of the "State of registry" which is to be found in articles V and VIII of the Treaty. The link with the Convention on International Liability derives from the very nature and object of this latter instrument.

In the context of the analysis of the Registration Convention from the viewpoint of security and confidence-building, it is important to point out that the Convention, while it is not directly an agreement specifically directed at the military sphere, acknowledges a function in this sphere that cannot be ignored.

That function derives in the first place from the close link with the body of space law, law which recognizes peaceful use as one of the guiding principles of human activity in outer space. Concretely, the Registration Convention reflects the primacy of that principle by quoting it in its first preambular paragraph. 2/

However, the link with the principle of peaceful use is not confined to the references to other, earlier texts. It is also apparent from the text of the Convention itself, which, in article IV, paragraph 1(e), calls upon the launching State to provide, in addition to information concerning itself and the designator and orbit, etc., of the space object, information concerning the "general function of the space object".

There is, then, express acknowledgement in the text of the Convention of the usefulness of compliance by States parties with certain concrete technical requirements as regards information, but, at the same time, it is established that, for the purposes of the Convention, the general function of the space object is a necessary additional criterion.

This fact confers upon the Registration Convention a more comprehensive nature than that of a mere inventory of purely technical generic information.

IV.

The operation of the Convention has made it clear that launching States provide the information superficially and partially. 3/

The fact that no State has registered a single launch for military purposes although the majority of launches basically have a function linked to military activities speaks for itself.

Furthermore, for the great majority of launchings, notifications have been submitted to the United Nations two to six months after launch. In a few cases, launchings have been notified within a week or two of launch, and in others, more than a year after it. 4/

The unsatisfactory level of compliance with the Registration Convention has led some States, aware of the importance of the instrument and of its unquestionable potential as regards security, to propose that States parties should take more committedly and seriously the undertakings freely assumed by them as contracting parties to the Convention. 5/

Other proposals have been made within the Ad hoc Committee. All attest to the practical importance of the Convention and its value as a legal support tool for detailed proposals aimed at establishing a space order based on greater transparency and co-operation and less exclusivity and confrontation. 6/

V.

The present proposal forms part of a tradition of initiatives all having to do with the possibility of strengthening the régime established by the 1975 Convention on Registration of Objects Launched into Outer Space. The Registration Convention, as we know, arose from the need to give greater

concreteness and specificity to considerations that were already present in a very general way in the 1967 Outer Space Treaty. In practical terms, it also supplemented the provisions of the 1972 Convention on International Liability.

In short, the Convention is an instrument which, while it cannot be described as relating directly to aspects linked to disarmament or arms limitation, unquestionably forms part of the body of space law, the tradition of which since the adoption by the General Assembly of resolutions 1721A (XVI), 1884 (XVIII) and 1962 (XVIII) is one of consistency and common objectives, prominent among which is that of using outer space for the benefit and in the interests of the international community.

Consequently, the Registration Convention, by providing concrete information about the nature and functions of objects launched into outer space, is, de facto, an essential data base for any subsequent development aimed at generating confidence regarding the uses of space.

To deny in this connection its unquestionable security value would simply be to show ignorance of the instrument and of its nature or, what is worse, to fail to observe its provisions if one is a party to it.

The drafters of the Convention began from the premise, which we now recognize as wholly valid, that broad knowledge of the presence of objects in outer space would generate the conditions necessary for the peaceful, harmonious and rational use of that environment. That being so, it was felt that a limited number of unilateral obligations regarding the provision of information would suffice to give concrete expression to that idea.

Article IV of the Registration Convention established this criterion through five basic reporting parameters:

(a) Launching State;

(b) Designator or registration number of the object;

(c) Date and location of launch;

(d) Basic orbital parameters (period, inclination, apogee, perigee);

(e) General function of the object.

Similarly, it stated that all this information should be provided "as soon as practicable".

Thus, the Convention established a highly generic framework and in itself constituted a not inconsiderable achievement, since the international community at that time lacked organized information in the field in question.

Hence, a principle of orderliness, or at least, the institutional legal framework for attaining it, was defined.

In practice, the results have been far from the least that was expected. The flow of information generated as a result of the application of the Convention has been meagre, incomplete and untimely, entirely subject to the

will of the State supposed to supply the information and with no possibility at all of stimulating the States parties to the registration régime to demonstrate more meticulous compliance with the terms of the agreement.

The adoption of minimalist wording, and the granting in the text of the Convention of almost total discretion ("... as soon as practicable ...") have in fact neutralized an instrument whose potential remains enormous.

Specifically, the strengthening of the régime ought to be undertaken on two levels: first, that of the scope of the information, and second, that of its timeliness.

As regards scope, we would refer in particular to the terms of article IV, paragraph 1(e). In this respect, we believe that States should provide something more than the "general function" of the space object, as that criterion makes it hypothetically possible to describe a military reconnaissance satellite as, for example, a communications satellite.

It can be seen how useful a more precise register would be, for example for the subsequent elaboration of rules to protect civilian satellites, or even military satellites, given its stabilizing function.

It must be emphasized that there is no reason why a more detailed description should affect the discreetness or effectiveness of a mission if the criteria that constitute a full and satisfactory general description of the functions of a space object are adequately defined.

As regards other additional information, we feel that the definition of common criteria could be the specific responsibility of a group of governmental experts under the auspices of the Conference through its Ad hoc Committee.

Turning to the timeliness of the provision of information, it is clear that, as the Convention is currently worded, the information can arrive late, if at all, or never, which is also probable.

A political decision properly backed up from the scientific and technical points of view should determine what time-limits would be acceptable if the Convention is to be useful and effective. That does not mean, for example, that information should be supplied prior to launching. The time-limits and the scope of the information could be defined in each case in accordance with the nature and functions of the object to be launched.

Strengthening the Registration Convention would not only suit the instrument better to the objectives originally sought, but would also make it a valuable additional factor of confidence and transparency with regard to the peaceful uses of outer space.

The Convention would then also yield positive complementary effects with other proposals that have been put forward in the Conference, such as those concerning the definition of codes of conduct for outer space, for which a reliable and systematic record of the objects launched into outer space is a basic prerequisite.

Notes

1/ As was recognized by the delegations of the United States of America and the Soviet Union before the Legal Sub-Committee of COPUOS, in Hurwitz, Bruce A., The Legality of Space Militarization, North-Holland, Amsterdam, New York, 1986.

2/ "Recognizing the common interest of all mankind in furthering the exploration and use of outer space for peaceful purposes", in Hurwitz, op. cit.

3/ See, from the United Kingdom on 29 July 1985, document CD/OS/WP.7, para. 15 in fine.

4/ See document A/AC.105/382, para. 16.

5/ See, from Australia and Canada, document CD/OS/WP.25, p.3.

6/ See, from Poland, document CD/OS/WP.38, as well as related proposals, such as document CD/937 from the delegation of France concerning satellite immunity and the establishment of a trajectography centre, and various statements by the delegation of the Federal Republic of Germany concerning a code of conduct for outer space (complete list of references to the relevant verbatim records in, from Mongolia and Venezuela, document CD/OS/WP.28/Rev.1, pp.26 and 27).

CONFERENCE ON DISARMAMENT

CD/1034
16 August 1990

Original: ENGLISH

REPORT OF THE AD HOC COMMITTEE ON PREVENTION OF AN ARMS RACE IN OUTER SPACE

I. INTRODUCTION

1. At its 541st plenary meeting on 8 March 1990, the Conference on Disarmament adopted the following decision:

> "In the exercise of its responsibilities as the multilateral disarmament negotiating forum in accordance with paragraph 120 of the Final Document of the First Special Session of the General Assembly devoted to disarmament, the Conference on Disarmament decides to re-establish an Ad Hoc Committee under Item 5 of its agenda entitled 'Prevention of an arms race in outer space'.
>
> The Conference requests the Ad Hoc Committee, in discharging that responsibility, to continue to examine, and to identify, through substantive and general consideration, issues relevant to the prevention of an arms race in outer space.
>
> The Ad Hoc Committee in carrying out this work, will take into account all existing agreements, existing proposals and future initiatives as well as developments which have taken place since the establishment of the Ad Hoc Committee, in 1985, and report on the progress of its work to the Conference on Disarmament before the end of its 1990 session."

2. In that connection a number of delegations made statements regarding the scope of the mandate.

II. ORGANIZATION OF WORK AND DOCUMENTS

3. At its 541st plenary meeting on 8 March 1990, the Conference on Disarmament appointed Ambassador Gerald Shannon (Canada) as Chairman of the Ad Hoc Committee. Mr. Vladimir Bogomolov, Political Affairs Officer, United Nations Department for Disarmament Affairs, served as the Committee's Secretary.

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4. The Ad Hoc Committee held 16 meetings between 13 March and 14 August 1990.

5. At their request, the Conference on Disarmament decided to invite the representatives of the following States not members of the Conference to participate in the meetings of the Ad Hoc Committee: Austria, Bahrein, Chile, Denmark, Finland, Greece, Honduras, Iraq, Ireland, Malaysia, New Zealand, Norway, Portugal, Senegal, Spain, Switzerland, Syria, Turkey, United Arab Emirates, Uruguay, Viet Nam and Zimbabwe.

6. In addition to the documents of the previous sessions 1/, the Ad Hoc Committee had before it the following documents relating to the agenda item submitted to the Conference on Disarmament during the 1990 session:

CD/908/Rev.1 CD/OS/WP.29/Rev.1	Letter dated 22 March 1990 addressed to the Secretary-General of the Conference on Disarmament from the Permanent Representative of Venezuela transmitting a list of existing proposals on the prevention of an arms race in outer space;
CD/976	Mandate for an Ad Hoc Committee under item 5 of the agenda of the Conference on Disarmament entitled "Prevention of an Arms Race in Outer Space";
CD/990	Letter dated 18 April 1990 addressed to the Secretary-General of the Conference on Disarmament from the Permanent Representative of Canada to the Conference on Disarmament transmitting a compendium comprising plenary statements and working papers relating to the 1989 session of the Conference on Disarmament;
CD/OS/WP.28/Rev.1	Letter dated 25 June 1990 from the Permanent Representatives of the Mongolian People's Republic addressed to the Chairman of the Ad Hoc Committee on Prevention of an arms race in outer space transmitting a working paper entitled "Review of proposals and initiatives of the States Members of the Conference on Disarmament under agenda item 5, 'Prevention of an Arms Race in Outer Space'";
CD/OS/WP.41	Programme of Work;
CD/1015 CD/OS/WP.42	Working paper entitled "Proposals for the strengthening of the régime established by the Convention on Registration of Objects Launched into Outer Space" submitted by Argentina

1/ The list of documents of the previous sessions may be found in the 1985, 1986, 1987, 1988 and 1989 reports of the Ad Hoc Committee, and in the special report to the third special session of the General Assembly devoted to disarmament (CD/642, CD/732. CD/787, CD/870, CD/834 and CD/956, respectively).

III. SUBSTANTIVE WORK DURING THE 1990 SESSION

7. Following an initial and extensive exchange of views and consultations on the programme and organization of work held by the Chairman with various delegations, the Ad Hoc Committee, at its 6th meeting on 24 April 1990, adopted the following programme of work for the 1990 session:

> "1. Examination and identification of issues relevant to the prevention of an arms race in outer space;
>
> 2. Existing agreements relevant to the prevention of an arms race in outer space;
>
> 3. Existing proposals and future initiatives on the prevention of an arms race in outer space.
>
> In carrying out its work with a view to finding and building upon areas of convergence, the Ad Hoc Committee will take into account developments which have taken place since the establishment of the Committee in 1985."

8. With regard to the organization of work, the Ad Hoc Committee agreed that it would give equal treatment to the subjects covered by its mandate and specified in its programme of work. Accordingly, the Committee agreed to allocate the same number of meetings to each of those subjects, namely, issues relevant to the prevention of an arms race in outer space, existing agreements and existing proposals and future initiatives. It was noted that any member wishing to do so may discuss any subject important and relevant to the work of the Committee.

9. The work of the Ad Hoc Committee was governed by the mandate which aims at the prevention of an arms race in outer space.

A. Examination and identification of issues relevant to the prevention of an arms race in outer space

10. During the debates in the Committee, member States had an opportunity to exchange views and express positions on different subjects relevant to the prevention of an arms race in outer space. Many delegations defined the subjects discussed, inter alia, as follows: determination of the scope and objectives of multilateral work under the agenda item; the status of outer space as the common heritage of mankind which should be used exclusively for peaceful purposes; the absence at present of weapons in space; the relationship between the prevention of an arms race in outer space and arms limitation and disarmament measures in other areas; the role of the bilateral

negotiations and their interaction with the multilateral activities in this field; the identification of the functions performed by space objects, and of the threats confronting them; vulnerability and immunity of satellites; their role and use for purposes of reliable verification; a concept of a comprehensive international verification system; questions relating to compliance and the need for information on how outer space is being used and on national space programmes of military significance; the need for identification and elaboration of mutually agreed legal terms; examination of sufficiency and adequacy of the existing legal régime; various approaches to reach a common understanding of what the existing legal norms do with regard to outer space activities; and functioning of the existing legal instruments.

11. There was general recognition of the importance of the bilateral negotiations between the Union of Soviet Socialist Republics and the United States of America and it was stressed that bilateral and multilateral efforts were complementary. Many delegations emphasized that those negotiations did not diminish the urgency of multilateral negotiations and reaffirmed that, as provided for in General Assembly resolution 44/112, the Conference on Disarmament, as the single multilateral disarmament negotiating forum, had the primary role in the negotiation of a multilateral agreement or agreements, as appropriate, on the prevention of an arms race in outer space in all its aspects. They also stressed that the scope of the work of the Conference on Disarmament was global and larger than the scope of the bilateral negotiations. Some other delegations, while recognizing the need for the Conference to play a role with respect to problems relating to the prevention of an arms race in outer space, stressed that nothing should be done that would hinder the success of the bilateral negotiations. Furthermore they believed that multilateral disarmament measures in this area could not be considered independently of developments at the bilateral level.

12. The Group of 21 emphasized that General Assembly resolution 44/112 had requested the Conference on Disarmament to consider as a matter of priority the question of preventing an arms race in outer space and to intensify its consideration of that question, taking into account all relevant proposals and initiatives, as well as to re-establish an ad hoc committee with an adequate mandate in 1990, with a view to undertaking negotiations for the conclusion of an agreement or agreements, as appropriate, to prevent an arms race in outer space in all its aspects. Reaffirming its commitment to the provisions of this resolution, this Group considered its adoption as an expression of strong

support to entrust the Ad Hoc Committee with an improved mandate in conformity with the responsibilities of the Conference on Disarmament as the single multilateral forum for disarmament negotiations. The same Group expressed the view that the Ad Hoc Committee on the prevention of an arms race in outer space has examined and identified the need for strict compliance with existing agreements and also has considered further measures and the need to hold appropriate international negotiations in accordance with the spirit of the Outer Space Treaty. It recalled the large number of proposals from all groups introduced in the Conference on Disarmament since the inception of the work of its Ad Hoc Committee in 1985. The Group considered the additional reference in the Programme of Work this year that the Ad Hoc Committee should carry out its work by finding and building upon areas of convergence as representing a certain qualitative improvement in the Committee's organizational context. This Group saw it as a clear recognition of the need to identify concrete areas for practical work in this field thus leaving behind the purely deliberative stage in which the Committee had operated since its establishment, particularly with reference to item 3 of the programme of work.

13. The Western Group was convinced that the mandate of the Ad Hoc Committee adopted by the Conference was sufficiently clear, broad and flexible to allow all interested delegations to contribute in a constructive way to reaching our common goal, the prevention of an arms race in outer space. One delegation, a member of this Group, while sharing the objective of the item under which the Ad Hoc Committee was established, believed that the CD should do everything possible to improve collective security whether on earth or in space. Recognizing the importance of the two Powers with the overwhelming capability in this area this delegation considered that the best way to begin the process was by direct negotiations between them. Meanwhile it believed that the CD does have a role to play. While holding the view that the Committee was not in a position to begin multilateral negotiations the delegation hoped that the discussion of various proposals would produce consensus on what is feasible and desirable. It considered that the aim in the Conference on Disarmament should be the continuation of the discussion of general considerations - technical, legal, political, military and strategic - to identify areas where the Conference might make a genuine contribution to prevent an arms race in outer space.

14. Many delegations stated that the prevention of an arms race in outer space remained one of the major concerns of the community of States. One

delegation of a non-member State believed that the verification of arms control agreements should constitute the sole military use of space. The disclosure by States of other military activities in space would constitute a great step forward towards the achievement of this objective. Another delegation stressed that the prevention of an arms race in outer space was an area that must be tackled with renewed commitment. An area that must be reserved for the common welfare of mankind cannot be subjected to power politics. As to the general environment against which space activities take place, this delegation stated that the increasing number of countries becoming involved in space activities make the consideration of the item in the Conference on Disarmament even more relevant. Furthermore, it indicated that as far as space activities are concerned, the encouraging signs one sees on disarmament related questions on Earth are absent. The absence of a consensus on the need to complete and develop a legal régime widely recognized as insufficient, coupled with the continuing disagreements between the two major space Powers create an extremely precarious situation. Referring to the work carried out by the Conference, after five years of consideration of the item, this delegation indicated that a qualitative step forward was possible. To this end, the Group of 21 stressed that the specific areas under consideration should be clearly delimited and determined by a rolling text of an analytical nature. Otherwise, the work of the Conference would not rise above the level of an exchange of views, more befitting a deliberative body than one with the characteristics of the CD.

15. Members of the Group of East European and other States stated that the CD faced many problems as it moved into the 1990s. In their view, rapid and serious steps were urgently needed now to address these problems. Referring to a considerable number of proposals on the table, these delegations expressed their readiness to hold intensive discussions with the involvement of experts. In their view, far-reaching understanding seemed to exist in terms of the usefulness of confidence-building measures (e.g., proposals made by France, Canada, the USSR, the FRG and Poland). The same holds true for the proposals advanced by East European States and non-aligned countries concerning agreements on the prohibition of anti-satellite weapons and other space weapons. With reference to the recent General Assembly resolutions, one delegation stated that the prevention of an arms race in outer space remained one of the major concerns of the international community. That State supported all measures negotiated and agreed bilaterally or multilaterally,

even if they are incomplete, which could prevent the introduction of weapons and weapons systems in outer space. It favoured respect for and the broadening of all existing rules in this field. This delegation was ready to give its support to proposals concerning, inter alia, the banning of anti-satellite weapons, the elaboration of a code of conduct in outer space or the monitoring of objects launched into space.

16. Stressing that arms control and disarmament are not ends in themselves but means to a more important goal, that of enhanced security, some delegations noted that a large majority of space activities consists of military activities and noted that many such activities clearly had stabilizing roles and were vital components of deterrence and strategic stability. They noted that military systems deployed in space accomplished a variety of support missions and that they played a vital role in the strategic relationship of the two major Powers. They considered that, while the Ad Hoc Committee had had very substantial discussions, fundamental divergences persisted and the work was still in an exploratory phase. In their view, the prevention of an arms race in outer space was linked to and should take into account progress in other fields of arms limitation and disarmament, in particular the reduction of nuclear weapons. These delegations continued to underline the importance of issues relating to verification of and compliance with existing and future agreements and held that those issues required a more thorough examination. They also stressed the need for detailed information on national space programmes that had military implications.

17. Some delegations reckoned that discussions on definitions so far had been unsatisfactory and had shown that without consensus about the basic assumptions and without agreement upon the technical, juridical and doctrinal meaning of a definition, any attempt to achieve clarity in conformity with intended treaty obligations would remain academic. The view was expressed that the Committee should discuss the existing military activities in space and look at the value and utility of such activity. One delegation indicated that useful work could be done on the definition of relevant terms as this would provide a basis both for discussion and future negotiations and would speed up work at the CD by precluding sterile arguments over semantics.

18. One delegation stated that since 1985, the Conference had considered, in successive ad hoc committees, questions related to the "prevention of an arms race in outer space". Its country had conducted its own examination of possible measures that might be feasible and desirable to serve as the basis

for possible negotiations on further multilateral arms control agreements that apply to outer space. To date, its Government has yet to see any proposals from others that it believes are feasible, desirable and verifiable. And the country has not identified any such appropriate measures to propose. The delegation declared that it was prepared to consider any proposal that emerges there but is not able to accept calls for multilateral negotiations in this area.

19. One delegation held that the prevention of an arms race in outer space and the peaceful utilization of it is the common aspiration of the people across the world. But it considered that in spite of the acceleration of the process of disarmament, the arms race between the super Powers has not ended but on the contrary has taken on a new trend, a dimension of which is the extension of the arms race into outer space. Hence preventing an arms race in outer space has become a major task in the field of disarmament. In its view the arms race in outer space based on the latest developments in science and technology is a qualitative escalation of the arms race in nature, which not only poses a threat to international peace and security but is also detrimental to the activities aimed at the peaceful utilization of outer space. Furthermore, it considered that it will have an adverse effect on the process of nuclear disarmament by pushing up the nuclear arms race to a new height. Confronted with such a reality it stands to reason for the international community to demand that the two countries with the largest space capabilities bear special responsibilities in preventing an arms race in outer space. They should adopt practical measures in undertaking not to develop, test or deploy any types of space weapons, and on this basis conduct negotiations with a view to concluding an international agreement that completely bans all space weapons. It took note of the bilateral negotiations on space issues between the two major space Powers and pointed out that so far nothing substantive has been achieved. The delegation recalled the relevant provisions of the UN General Assembly resolution 44/112. It also recalled that its State has all along been opposed to the arms race in outer space and stood for the complete prohibition and thorough destruction of all kinds of space weapons, including both anti-ballistic missiles and anti-satellite weapons, because these two kinds of weapons are inseparable.

20. Many delegations reiterated that outer space was the heritage of all mankind and as such it should therefore remain a domain for exclusively peaceful co-operation, thus making it of vital importance to prevent an arms

race in outer space. Some delegations pointed out that to date the Conference has performed useful work on identifying and clarifying the various aspects of this complex item and has before it numerous proposals aimed at supplementing and elaborating upon the existing legal régime, which should continually be strengthened. In their view, the Conference should urgently fulfil its role in the elaboration of new instruments of a legal character which would, in an all-embracing and multilateral way, tackle the issue of the non-militarization of outer space. Those delegations maintained that the timeliness for effective solutions could be seen from the statement made in the plenary of the Conference that United States-Soviet bilateral negotiations are "based upon a mutual recognition that there is no absolute weapon - offensive or defensive", which clearly indicated the negative consequences of deployment of any weapons in outer space. They also recognized to be an urgent issue, as an increasing number of countries are becoming technologically capable of conquering outer space, in which only military activity aimed at verifying disarmament treaties could be useful. In their view the urgent elaboration of a system of confidence-building measures would clear the way for essential steps towards preventing the arms race.

B. Existing agreements relevant to the prevention of an arms race in outer space.

21. The Ad Hoc Committee recognized that activities in the exploration and use of outer space should be carried out in accordance with international law. The importance of the principles and provisions of international law relevant to the prevention of an arms race in outer space was stressed.

22. Some delegations underlined the central role that the Charter of the United Nations played in the legal régime applicable to outer space. In that connection they stressed the special significance of paragraph 4 of Article 2 and Article 51. They noted that Article 2(4) prohibits the threat or use of force against the territorial integrity or political independence of any State. Complementing Article 2(4), Article 51 permits States to exercise their inherent right of individual or collective self-defence. These delegations thus concluded that when read together, these two Charter provisions strictly prohibit the use of force in all instances except self-defence. Accordingly, they believed that these provisions afforded a substantial degree of protection to space objects. Other delegations reaffirmed the importance of the United Nations Charter, but, at the same

time, reiterated that its provisions concerning the non-use of force could not, in and of themselves, be sufficient to preclude an arms race in outer space - just as they had not done so on Earth - since they did not address the question of the development, testing, production and deployment of weapons in space. These delegations recalled that the legal provisions of these articles had not diminished the universally-recognized need to negotiate disarmament agreements and even to ban specific types or whole classes of weapons, such as biological, nuclear, chemical and radiological weapons. In their view, Article 51 of the Charter could not be interpreted as justifying the use of space weapons for any purposes or the possession of any type of arms based on the use of space weapons. They also stressed that Article 51 could not be invoked to legitimize the use or threat of use of force in or from outer space. In this context, they noted that the objective agreed upon by consensus, both at multilateral and bilateral levels, was not to regulate an arms race in outer space but to prevent it, and that any attempt to justify the introduction of weapons in that environment contradicted that objective. One delegation stated that the right to legitimate self-defence enshrined in Article 51 of the Charter does not authorise any State to extend its military power into space nor to use that environment as an arena to station its instruments of destruction, endangering the security and integrity of other States.

23. One delegation, a member of the Group of 21, stressed that Article IV of the Outer Space Treaty, contains a built-in limitation, as its scope does not extend to banning all types of weapons in outer space. It prohibits, inter alia, the placing, installing or stationing of nuclear weapons and other weapons of mass destruction only. Its provisions do not therefore contain a clear-cut injunction to ensure that outer space is used exclusively for peaceful purposes. In the view of this delegation the principle of exclusive use for peaceful purposes applies only to the Moon and other celestial bodies and the only restriction placed on States parties pertains to the prohibition of the establishment of military bases, installations and fortifications, the testing of any type of weapon and the conduct of military manoeuvres on celestial bodies. The delegation considered that this meant that there was an inherent contradiction in the same article of the Treaty, thereby creating as a result not one but two legal régimes - one applicable to outer space and the other confined to the Moon and other celestial bodies. Another delegation belonging to the same Group shared these opinions and added that the peaceful

use of outer space must not be against the primordial aim of safeguarding international peace and security, a use which would not imply a violation of the fundamental principles and aims of the United Nations Charter, particularly the rule of paragraph 4 of Article 2 of the Charter, which prohibits any activity which threatens or implies the use of force against the territorial integrity and political independence of a State.

24. Some delegations pointed out that as a result of the work accomplished in the past years, the Committee had at its disposal a sound analysis of the existing international law of outer space and a number of constructive proposals.

25. Some delegations observed that when the Outer Space Treaty was negotiated, the possibility that space-based anti-satellite weapons or defence systems could be developed was not foreseen and the Treaty, in fact, was a response to the challenges that space technology created in the 1960s. One delegation stressed that the first paragraph of article IV of the Treaty, represented a legal loophole exploited by the Powers to develop a new generation of weapons that can be placed in outer space. The Group of 21, while recognizing that the legal régime placed some limitations on certain weapons and military activities in outer space, emphasized that existing legal instruments left open the possibility of the introduction of weapons in space, other than nuclear weapons or other weapons of mass destruction. Consequently, according to that Group these were not sufficient to prevent an arms race in that environment, particularly in view of the rapid pace of progress in space science and technology as well as ongoing military space programmes. That Group believed that there is an urgent need to consolidate, reinforce and develop that régime and enhance its effectiveness with a view to preventing an arms race in outer space.

26. One delegation stated that although space law has a variety of sources, including customary international law, the Charter of the United Nations, bilateral agreements relating to outer space and a series of treaties addressing specific issues of space law - the corner stone of international space law is the Outer Space Treaty of 1967. Scrupulous compliance with the principles of the Treaty has served the international community well in the past and should continue to do so in the future. In the view of this delegation, the Outer Space Treaty contains several provisions relevant to those issues of concern for this Committee. Article IV prohibits the orbiting around the Earth, stationing in outer space, or installation on celestial

bodies of nuclear weapons or any other kinds of weapons of mass destruction. This provision sufficiently addresses the major concerns of the community of nations, while permitting those activities necessary for minimum strategic stability consistent with the use of outer space for peaceful purposes. One of the most important principles of international law, recognized in Article 51 of the United Nations Charter, is the right of nations to defend their sovereign, territorial integrity and political independence. Like the high seas and international airspace, international law has always considered space available for those non-aggressive activities that have been proven to promote international stability. In addition to the Outer Space Treaty and the subsequent treaties addressing the exploration of outer space, certain arms control treaties have provisions specifically applicable to space activities. Important among these is the Anti-Ballistic Missile Treaty of 1972. The history of this agreement demonstrates the value of permitting States with paramount interests in certain areas of the arms control process to resolve their fundamental differences by means of such bilateral arrangements. The delegation emphasized that it was of the firm belief that any perceived gaps in the legal régime can be satisfied by particular attention to the principles now in existence. It underlined its deep commitment to the use of outer space for peaceful purposes and for those defensive aspects of the security of that State that require a military presence in space. It stated that its State intended to pursue with deliberate speed its objectives in accordance with international law.

27. Some delegations expressed serious concern that one space Power went ahead with its strategic defence programme by having conducted or planning a number of experiments which would lead to growing mistrust and might intensify the arms race.

28. Various delegations believed that the present legal régime governing outer space was no longer adequate to guarantee the prevention of an arms race occurring in outer space. It was noted that General Assembly resolution 44/112 recognized the urgency of preventing an arms race in outer space and requested the Conference on Disarmament to undertake negotiations for the conclusion of binding agreement or agreements, as appropriate. While recognizing the significant role played by that régime and the need to consolidate and strengthen it and its effectiveness, several delegations called for the total prohibition of the development, production, stationing, stock-piling and use of space weapons and the destruction or transformation of

C. Existing proposals and future initiatives on the prevention of an arms race in outer space

29. Some delegations, stressing the urgency of forestalling the introduction of weapons in space, discussed comprehensive proposals for the prevention of an arms race in outer space, such as those calling for a treaty prohibiting the use of force in outer space or from space against Earth, a treaty prohibiting the stationing of weapons of any kind in outer space and amendments to the 1967 Outer Space Treaty.

30. One delegation reiterated its proposal (contained in CD/939) to amend Article IV of the Outer Space Treaty so as to make its prohibition applicable to any kind of weapons and to contemplate the negotiation of an Additional Protocol for the purpose of prohibiting the development, production, storage and deployment of anti-satellite-weapons systems which are not stationed in outer space. According to that proposal those amendments to the Treaty would be complemented by a second additional protocol to deal with the verification system to ensure faithful compliance with the obligations assumed by the States Parties which may be a mixed system based principally on a multinational or international approach and on a national approach in accordance with the means of verification available to each State Party. The same delegations stressed the need for strengthening the confidence-building measures as well as the legal régime to prevent the arms race in outer space.

31. One delegation expressed the view that the general objective should aim at establishing one legal régime for outer space as well as the Moon and other celestial bodies. It maintained that this could only be realized through a clear-cut provision declaring that outer space shall be used exclusively for peaceful purposes.

32. One delegation made a reference to its proposal contained in document CD/851 seeking to amend Article IV of the Outer Space Treaty. That delegation stressed that that proposal has, as its point of departure, the recognition, largely shared by a vast sector the Conference and reflected in previous reports of the Ad Hoc Committee that the Outer Space Treaty has an important juridical vacuum and is inadequate to prevent an arms race in outer space because it does not prohibit the stationing in space of weapons other than nuclear and mass destruction weapons. It maintained that those other weapons not covered by the Outer Space Treaty are described in this proposal and currently they give rise to the deepest concern because they are the subject of research and development, with a view to being incorporated into strategic defence systems.

33. One delegation suggested that the majority of satellites with military capabilities belonged to two major Powers and they are critical for the stability of the strategic nuclear systems. Both States are negotiating bilaterally to reduce their strategic nuclear arsenals and address outer space issues. In the view of this delegation, one day these nuclear systems and their associated land and space-based concomitant may disappear, but for the moment however they remain pillars of the security of both States and only a deliberate, rational, harmonious policy will retire them without danger. Therefore, it would be impossible to imagine that the Conference on Disarmament could play an active and constructive role in this process at this stage.

34. One delegation recalled that its Government had introduced radical proposals to prevent the development and deployment of any space weapons at all and specifically anti-satellite weapons. Experience showed, however, that such radical measures could not become the subject of concrete negotiations in the near future. As a result, more and more delegations are opting to begin with confidence-building measures in space. It pointed out that the idea was not to start negotiations just for the sake of negotiations, in order to be able to report that the CD was conducting negotiations on outer space, but rather to take the first steps towards establishing the basis for confidence with respect to States' space activities - to build up experience with constructive multilateral work as regards the outer space dimension of security and stability. However important the bilateral Soviet-American negotiations are, multilateral efforts are vital, because an increasing number of States are becoming involved in space activities. Therefore, the delegation suggested that the concept of "open outer space" should become a subject of consideration at the Conference on Disarmament. The most important measures related to the realization of the "open outer space" concept, in the view of this delegation include (a) the strengthening of the 1975 Convention on Registration of Objects Launched into Outer Space; (b) the elaboration of "rules of the road" or a "code of conduct"; (c) the use of space-based monitoring devices in the interest of the international community; and (d) the establishment of an international space inspectorate. France's proposal for the establishment of an international centre to process images obtained from space also deserves a positive response. These measures cannot endanger anybody's security. The delegation urged all States to study thoroughly the positive potential embodied in the "open outer space" concept. One delegation

submitted on behalf of two states an updated version of the document entitled "Review of initiatives initiatives of the States members of the Conference on Disarmament under agenda item 5", prepared on the basis of the official documents and records of the United Nations General Assembly and the Conference on Disarmament, as well as on statements made by the member States (CD/OS/WP.28/Rev.1). The delegation hoped that the review would promote in-depth analysis of the complex political, military, scientific, technical and international legal problems, taking into account the necessity of examining avenues which could lead to future multilateral negotiations in the Conference on Disarmament aimed at the prevention of an arms race in outer space.

35. Several delegations reiterated that they stood for the banning of all space weapons which naturally includes ASAT weapons. In the view of these delegations in order to facilitate consideration and negotiation of the issue of the prevention of an arms race in outer space, the banning of ASAT weapons, as a first step, has a certain practical significance.

36. One delegation held that in order to effectively prevent an arms race in outer space it was necessary that the two countries with the largest space capabilities should immediately stop the development, testing, production and deployment of space weapons and destroy all the existing ones, including both anti-ballistic missiles and anti-satellite weapons. They should reach as soon as possible substantive agreement on the prevention of an arms race in outer space through serious negotiations; all space capable States in their activities in outer space should not take any action contrary to the existing relevant conventions and the common goal of preventing an arms race in outer space. Instead they should adopt timely and effective measures for the realization of this common goal. As the sole multilateral forum of disarmament negotiations, the Conference on Disarmament should start as soon as possible negotiations on an international convention on the complete prohibition of space weapons and of the use of force or hostile activities both to and from outer space. International co-operation should be vigorously carried out for the peaceful utilization of outer space, so that mankind can genuinely benefit from this common heritage. Space capable States should make positive contribution to this end.

37. One delegation stated that its Government has concluded that because of the many problems associated with ASAT arms controls, a ban prohibiting testing and deployment of all specialized ASAT systems would not be in the

national security interest of that State. Some of its concerns associated with ASAT systems include verification, definition, break-out potential and disclosure of information. These problems would become even more intractable with a ban on ASAT capabilities, which would require the inclusion of systems that are not specialized ASAT systems but that have inherent ASAT capabilities, these include manoeuvring spacecraft, some direct-ascent ABM interceptors, ICBMs and SLBMs.

38. An expert from one delegation gave a presentation on the present and future use of commercial space based remote sensing satellite imagery for arms control verification purposes. That presentation concluded that: future satellite verification systems could be operated by a particular State or, alternatively by a multilateral verification régime; present commercial satellite imagery must be supplemented by other sources; and, data acquired by a future verification system could be used for other important tasks such as environmental monitoring.

39. This same delegation presented another expert contribution, this one on verification and outer space. This presentation concluded that: the large scale expansion of human activity in space in the coming years could lead to activities which appear ambiguous with respect to space weapon development; there is a conceptual approach to defining spacecraft as relatively benign or harmful; and, verification of the relative harmfulness of a space object can be made more effective by supplementing existing treaty restrictions with confidence-building measures.

40. One delegation pointed out that confidence-building measures, increased transparency, "rules of the road", etc., that could be of interest for a reinforced régime pertaining to space activities, should be based, inter alia, on multilateral observation and verification arrangements. It would appear that techniques for observation and verification of confidence-building régimes and measures to prevent an arms race in outer space could be similar or identical. The delegation reiterated in this context its proposals to ban so-called dedicated anti-satellite weapons as well as the testing of other weapons devices in an ASAT mode. The delegation shared the opinion expressed on the necessity to strengthen the existing "declaratory" régime pertaining to space activities through, e.g., a reinforcement of the Registration Convention. But this was not enough. Cross-references to voluntary data exchange were called for. The same delegation introduced an independant expert, who made a presentation on methods in support of an enhancement of

security in space. The expert in this context presented various interesting technologies such as, inter alia, microwave radar imaging, which would make it possible to obtain images of satellites from a ground station with a resolution in the order of centimetres. Several other techniques were referred to, such as satellite-borne sensors; on-site inspections; infra-red devices; and the tagging of satellites, etc. An international tracking centre could be established and at its disposal have a tracking centre, as well as a world-wide network of observation stations. The delegation looked forward to continued deliberations on verifications techniques. The Ad Hoc Committee last year and during the 1990 session had advanced its work on these kind of issues, inter alia, through interesting contributions by scientific and technical experts. The contributions of experts should be as systematic and structed as possible. The delegation had, therefore, proposed that an expert group be established to assist the work of the Committee.

41. Another delegation in the presentation of its expert gave its view on new technologies for effective non-nuclear defences against strategic ballistic missiles. It stated that it would be unwise to discriminate in arms control accords in favour of nuclear defences and against non-nuclear defences. This is why this State seeks in its bilateral negotiations to facilitate the co-operative transition to increasing reliance on such defences. To facilitate this transition and openness, it has proposed the following four ideas in the Defence and Space Talks: first, a side ought not deploy large-scale defences without first engaging in three years of discussions with the other side on specific measures for a co-operative transition. In these discussions the sides could address such questions as the purpose and architectures, and planned pace and scale, of intended deployments, and confidence-building measures; second, the ABM Treaty's permissive rights for testing certain types of advanced, space-based defences should be acknowledged. In this regard this State has provided an assurance to the other side that its testing could not, by virtue of strict limits on the number of ABM test satellites, constitute a prohibited deployment of defences; third, treaty constraints on space-based ABM radars and devices which can substitute for them, which are useful for advanced defences, should be dropped; fourth, the sides should implement now a series of predictability measures that would bring greater openness and thus reduce the risk of future technological surprise.

42. One delegation stated that the creation and deployment of such ABM systems and the placing of weapons in outer space could lead only to the undermining of strategic stability and a reduction in the level of security, because it would inevitably lead to competition in the field of both strategic defensive arms and strategic offensive weapons - in other words, an arms race on a new and even more dangerous level. This would inevitably also lead to the destruction of fundamental international agreements in the area of arms control. Stability and security in our time could only be reciprocal and were achieved not by the continuation of the arms race but rather through the consistent reduction of strategic offensive weapons together with strict limitations on strategic defensive systems, a ban on the placing of arms in outer space and the expansion of confidence-building and predictability measures.

43. Various delegations were of the view that consideration should be given to the questions of the protection of satellites. Some delegations considered that attempts to establish a protection régime based on a categorization of satellites would give rise to many difficulties and advocated the granting of immunity to all space objects without exception, with the understanding that space weapons would be subject to an unconditional ban. Other delegations were of the view that certain distinctions should be made for the purpose of immunizing satellites and various possibilities were mentioned in terms of their functions, purposes and orbit. In this connection, some delegations held that a protection régime called for improvements in the system of registration of space objects to permit the identification of the nature and missions of protected space objects. Some delegations stressed in particular that immunity should not be extended to satellites that perform military missions.

44. One delegation, in an expert presentation, described the legal régime for outer space as general, precarious and unevenly ratified. It considered that any provisions limiting or prohibiting weapons or activities were only exceptions to the possible use of outer space on the basis of self-defence and that the principle of peaceful use only excluded aggressive uses of space. To improve the peaceful uses of outer space, it deemed particularly important to utilize the verification potential offered by outer space and to strengthen the security of space activities. In this respect, it recalled its proposal for an Agency for the Processing of Space Images (APSI) put forward in 1988. Since it considered that the diversity of ASAT systems made it practically

impossible to design a single comprehensive prohibition régime, that delegation reaffirmed that it was necessary to codify the principle of non-interference with non-offensive space activities and to elaborate a space code of conduct, based on a reinforced registration régime.

45. Some measures relating to the security of satellites were mentioned by some delegations, such as multilateralizing the immunity provided for in certain bilateral agreements to satellites that served as national technical means of verification, a "rules-of-the-road" agreement, the reaffirmation and further elaboration of the principle of non-interference with peaceful space activities and the elaboration of a code of conduct in outer space to prevent the risks and fears that could arise from certain manoeuvres of space objects.

46. In the view of a number of delegations, it was imperative to create a coherent set of confidence-building measures in relation to activities in outer space and this could be achieved by initiating a process of data exchange. Stressing the non-compulsary character of possible measures, one delegation subjected to detailed analysis several articles of the Outer Space Treaty and Registration Convention, which contained "points of contact" or "starting points" capable of serving as a framework for this set of measures.

47. One delegation reiterated its conviction that its concept of a "rules-of-the-road" agreement would be a useful contribution to a protection régime in outer space, to the creation of a solid future space order and to the prevention of an arms race in outer space. In its view, the main components of such an agreement would comprise inter alia: restrictions on very low altitude overflight by manned and unmanned spacecraft; new stringent requirements for advanced notice of launch activities; specific rules for agreed and possible defended "keep-out zones"; grant or restrictions of the right of inspection; limitation on high-velocity fly-bys or trailing for foreign satellites; established means by which to obtain timely information and consultations concerning ambiguous or threatening activities. Detailed views in this regard alluding more closely to the possibilities of correlating experts' proposals on a multilateral protection régime for outer space of the precedent session were again provided in an experts' presentation of this delegation entitled "On Correlating Measures of Confidence- and Security-Building in a Multilateral Protection Régime for Outer Space".

48. Another delegation declared that it continued to study the variety of options for arms control in outer space and it has concluded that elaborating and discussing rule-of-the-road for satellites in the multilateral context,

would directly interfere with ongoing bilateral talks on outer space issues between two major Powers. The delegation stressed that its Government cannot now engage in multilateral discussions or negotiations of rules-of-the-road. As for the concept of keep-out zones, in its view it was beset by many difficulties and inconsistencies. This State considered that the current legal régime renders these zones superfluous. Specifically, verification, in its view, would be difficult, and keep-out zones also have the potential of interfering with national technical means of verification. Depending on how defiant, these zones could violate Article II of the Outer Space Treaty.

49. Many delegations focussed on the importance of transparency in the activities of States and of accurate information on how outer space was being used. The view was expressed by some delegations that there was a need for expert examination of the parameters on which information should be provided and it was suggested that a group of experts be set up for that purpose. Some delegations believed that strengthening of the Registration Convention would be a valuable confidence-building measure, and they discussed various ways and means of improving the system of notification established thereunder with a view to assuring the availability of timely and adequate information on the nature and purposes of space activities.

50. One delegation recognized the utility of elaboration of a kind of data base on the launching of satellites and the collection and classification of technical data. It considered that for this purpose it would be a good start to establish a scientific centre whose work could be shared among scientists in different parts of the world. In its view the more information and more experience and more opportunity for comparisons, the more could be built to contribute to deeper and more widespread co-operation, putting into practice the idea that space is a value common to all mankind.

51. One delegation made an expert presentation, emphasizing the role of notification on space activities as a confidence and security-building measure. This delegation noted that the implementation of the principle of legal immunity of satellites and non-interference with space activities of other States derived its verifiability from sufficiently precise information on the behaviour of space objects. The delegation stated further that the Convention on Registration of Objects Launched into Outer Space was insufficient in so far as it did not provide adequate data. In order to acquire the data, the delegation proposed a phased extension of information requirements, comprising pre-launch information, announcement of parameters

immediately after launch and updates as required during the whole time of the existence of an object in outer space. Manoeuvres of space objects should be announced in advance. This delegation was of the opinion that acquisition of data on orbital parameters and mission activities could best be performed by an International Processing and Information Centre. It was suggested that the Committee should contribute to a comprehensive space management system with its core - a legal protection régime for space objects. This régime would require internationally binding provisions for the conduct of space activities and a reliable verification procedure. A structured debate on these subjects could include: (a) Notification - (b) Code of conduct/Rules-of-the-Road - (c) Inspection In order to facilitate this work, the assistance of experts could be sought.

52. Many delegations referred to the questions concerning the functioning of the Registration Convention and pointed out that this Convention, as mentioned in its preamble, has to be seen in the context of developing international law governing the exploration and use of outer space and therefore had direct relevance to the work of the Ad Hoc Committee. One delegation of the Group of 21 referred in detail to its proposal on the strengthening of the régime established by the Convention on the Registration of Objects Launched into Outer Space (CD/1015-CD/OS/WP.42). It affirmed that in spite of the fact that the Convention cannot be described per se as a disarmament or arms limitation agreement, it provides specific information about the nature and functions of objects launched into space, thus constituting an indispensable database for any subsequent development designed to generate confidence in the uses of outer space. That delegation pointed out that the concrete results of the implementation of the Convention fall far short of the most modest hopes, as the flow of information generated by the application of the Treaty has proved to be scanty, incomplete and tardy. However, the delegation concerned considered that the potential of the instrument continues to be vast. In specific terms it indicated that the changes in the régime should apply on two levels, one being the scope of the information to be provided and the other the timeliness. Additional parameters and information should be added to the items already present in article IV of the Convention and to that effect a duly mandated Expert Group under the auspices of the Ad Hoc Committee should be entrusted with the responsibility to devise those criteria. Finally, the delegation responsible for this proposal stressed that a more precise register would be necessary for the subsequent formulation of régimes to protect

satellites or schemes like the ones referred to as "Rules of the Road" and others. Such a reformulated Registration Convention, in the view of that delegation, would certainly better adapt the instrument to its original objectives, while making it an important confidence-building and transparency measure related to space activities.

53. Another delegation pointed out that its Government did not favour proposals that blur the role of the Registration Convention, that confuse issues relevant to space co-operation with those relevant to space disarmament. It held that the Convention's primary purpose was to provide a central registry to facilitate determining liability and the Convention was not an arms control measure. It also strongly disagreed with the view that the 1975 Registration Convention needs amending. It functions well and should not be expected to take on burdens for which it was not designed. If changes were advisable, it would be most inappropriate to discuss them with non-parties of the Convention. That State judges that the Conference on Disarmament is not the competent body to discuss amendments and that this task falls properly within the mandate of the Committee on the peaceful uses of outer space. In particular, the Convention has provisions for amending, which States parties can implement at any time, and a problem with the Registration Convention has been in its implementation rather than in its provisions, as only about 35 States have ratified the Convention. The delegation made an appeal that all States with outer space programmes should become parties. Some States failed to register their space objects or waited several years before doing so. The delegation stressed that some of the very countries pressing for changes to the Registration Convention have either been negligent in their reporting or are not parties to the Convention and widespread adherence to the Convention is far more likely to strengthen it than piecemeal attempts to redefine its terms. The delegation did not see any need for additional reporting requirements or voluntary enhancement of the 1975 Registration Convention as Article IV of that Convention makes adequate provision for additional voluntary reporting and it is not at all clear that additional reporting would serve as measures to build confidence. It also noted that the issue of debris in space belongs elsewhere than in the Conference on Disarmament.

54. Referring to its proposal concerning declaration that weapons have not been deployed in outer space on a permanent basis, one delegation explained that the initiative, which was aimed at generating a climate of confidence in

the field of the prevention of an arms race in outer space, continues to be a valid initiative as experts and analysts concur in the conclusion that for the time being no weapons have been deployed in the space environment. The delegation, underscoring the political nature of such unilateral declarations, recalled that they have been recently agreed in the bilateral negotiations between the two major military Powers, to deal with very specific issue areas in which the complex nature of the elements to be verified make necessary the resort to manifestations of a political commitment in order to make progress.

55. Some delegations recognized the importance of verification in the context of measures to prevent an arms race in outer space and considered that it should be possible to assure verification of compliance with agreements through a combination of national technical means and international procedures. Other delegations noted that the Outer Space Treaty contained some verification provisions. A number of delegations were of the view that verification functions should be entrusted to an international body to provide the international community with an independent capability to verify compliance. Reference was made to the proposed international satellite monitoring agency and to international co-operation for the use of Earth monitoring satellites for the verification of arms limitation and disarmament agreements.

56. One delegation, in an expert presentation, analysed the different existing and possible ASAT systems. It noted that the efficiency of such systems depended on the speed of their operation, on their discretion, on their collateral effects and on the replacement capacity of the targets. It drew attention to the relationship between ASAT and ABM systems. It described possible ASAT techniques (fragmentation, kinetic or directed energy weapons) as well as the constraints which some of them would face (disturbances, need for accuracy, targeting, checking of results ...) It also envisaged possible passive and active counter-measures to ASAT systems. It stressed the difficulties in verifying a possible ban on ASAT weapons as well as in defining the scope of such a prohibition. It concluded that some technical financial or strategic constraints could dissuade ASAT deployments more than legal norms; co-operative measures such as a space code of conduct could however favour the conclusion of agreements in this field. In another expert presentation, the same delegation recalled its proposal for an International Trajectography Centre, designed as a management instrument for a confidence-building and transparency régime, which would collect data on space

objects provided by their users and calculate trajectories in order to warn users in case of potential incidents. This could serve as elements in evidence of good faith if incidents occurred. To illustrate both the prospects offered by such a project and the constraints which it would face, that delegation analysed the techniques for determining and extrapolating satellite orbits; it described the natural and other disturbances which need to be taken into account. It concluded that each type of space mission had specific needs in orbitography, and that international co-operation in this field would strengthen the security of space activities.

57. Many delegations welcomed the presence of an increased number of legal, scientific and technical experts introduced by delegations from all Groups and noted with satisfaction the contribution they made in increasing the understanding of a number of problems and of respective positions. Several delegations considered that such presentations contained ideas and proposals for methods that could be of some use for the various confidence-building measures or measures to prevent an arms race in outer space put forward in the Committee. In this context, many delegations continued to support the establishment of a group of governmental experts to provide technical expertise and guidance in the consideration of issues before the Ad Hoc Committee.

58. One delegation stated that each member of the Conference on Disarmament has the right to use experts to make presentations to appropriate bodies of the CD. Despite the eductional value of the presentations made this year the delegation cannot envisage that CD members would be able to agree upon a group of experts that would be thoroughly objective as political elements would invariably skew expert deliberations. This State concludes that the Conference is not the proper parent for such offspring.

59. One delegation stressed the importance of co-operative measures in the use of outer space. In the view of this delegation substantial possibilities of co-operation also exist in the military field. It recalled the idea of international monitoring agencies or independent satellite observation systems advanced by a number of Governments. It considered that the competence of such a system or agency could cover the monitoring of arms control arrangements, collecting information and data on sensitive areas as well as supporting United Nations peace-keeping efforts. In the view of that delegation it would be of the utmost importance if the two most-advanced outer space Powers, in co-operative with others who expressed their interest, could

inform this Conference or the United Nations that they offer the use of their outer space systems, or some part of them, to the United Nations. It held that this could become a key in a new approach to the prevention of an arms race in outer space. That delegation thought that this arms race could be prevented not only by bans and prohibitions but also by international co-operation, taking into account the security interests of all States. At the same time it noted that such observation and monitoring arrangements, internationally created and managed, could complement and strengthen the structure of the UN collective security system, making its activity more efficient.

60. Some other delegations were of the view that it was necessary to continue the examination of issues relevant to the prevention of an arms race in outer space that had not been sufficiently explored. They believed that much more detailed examination had to be done before it would be possible to undertake further activities. They considered that given the divergence of views on substantive and political issues, the broad scope of individual topics and the highly technical nature of the subject, the Committee had carried out work which contributed to a better understanding of the subject, but that much remained to be accomplished within the terms of the current mandate and programme of work. They also noted that much of the discussions held on proposals clearly showed the persistence of radically different approaches to the issues and that consensus did not exist on them. Consequently, the Committee needed to continue to study all the subjects covered by the mandate in order to establish a common body of knowledge and understanding, and common definitions of the scope and specific objectives of multilateral efforts for the prevention of an arms race in outer space.

61. Many delegations, while recognizing the importance of substantive consideration of relevant issues, emphasized that such consideration should be an integral part of the multilateral process of elaborating concrete measures aimed at the prevention of an arms race in outer space and that it could be done in the context of considering specific proposals. They reaffirmed that the objectives of multilateral efforts in this field are clearly set out in the Final Document of the first special session of the General Assembly devoted to disarmament. They also recalled the relevant resolutions adopted by the General Assembly. In this context, these delegations stressed the indispensable role of the Conference on Disarmament as the single multilateral negotiating body on disarmament and the inscription of item 5 on its agenda.

62. The Group of 21 stressed that the need to undertake negotiations on concrete measures on an urgent basis had become evident. It suggested ways to improve the work of the Ad Hoc Committee in the examination of existing proposals in order to make it more effective. In this respect, the same Group proposed dealing with those proposals that lend themselves to a more structured analysis by the establishment of sub-groups. The same Group stated that there appeared to be a general recognition that the Committee could usefully consider confidence-building measures and data-base improvements relevant to its mandate in consonance with evident complementarities of bilateral and multilateral efforts in this area. Given the improved international atmosphere the Group also underlined the continued general recognition in the Ad Hoc Committee for over five years of the importance and urgency of preventing an arms race in outer space and its readiness to contribute to that common objective. This Group felt that opportunities existed for such a constructive course of action to facilitate progress towards achieving the objectives of the Committee's mandate.

IV. CONCLUSIONS

63. There continued to be general recognition in the Ad Hoc Committee of the importance and urgency of preventing an arms race in outer space and readiness to contribute to that common objective. The work of the Committee since its establishment in 1985 has contributed to the accomplishment of this task. The Committee held a wide ranging exchange of views and heard a number of expert presentations which contributed to identifying and clarifying a number of issues and to a clearer perception of the various positions. The Committee, while aiming at identifying areas of convergence suitable for further structured work, advanced and further developed the examination and identification of various issues relevant to the prevention of an arms race in outer space. It was recognized once more that the legal régime applicable to outer space by itself does not guarantee the prevention of an arms race in outer space. There was again recognition of the significant role that the legal régime applicable to outer space plays in the prevention of an arms race in that environment and of the need to consolidate and reinforce that régime and enhance its effectiveness and of the importance of strict compliance with existing agreements, both bilateral and multilateral. There was general recognition of the importance of the bilateral negotiations between the Union

of Soviet Socialist Republics and the United States of America and it was stressed that bilateral and multilateral efforts were complementary. In the course of the deliberations, the common interest of mankind in the exploration and use of outer space for peaceful purposes was acknowledged. In this context, there was also recognition of the importance of paragraph 80 of the Final Document of the first special session devoted to disarmament, which states that "in order to prevent an arms race in outer space, further measures should be taken and appropriate international negotiations held in accordance with the spirit of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and other Celestial Bodies". The Ad Hoc Committee continued its examination of existing proposals and gave a preliminary consideration to a number of new proposals and initiatives aimed at preventing an arms race in outer space and ensuring that its exploration and use will be carried out exclusively for peaceful purposes in the common interest and for the benefit of all mankind.

64. In the context of their contribution to the discussions on all aspects of the mandate and work programme, the importance of the presentations in the Committee relating to confidence-building measures and to greater transparency and openness in space made in the course of the 1990 session was recognized by the Committee. Although cognizant of the various positions on these matters the Committee also recognized the relevance of that discussion to the work of the Committee. The Committee also noted the valuable and significant contribution to this discussion of the experts from many delegations and expressed its appreciation to those delegations that provided those contributions.

65 It was agreed that substantive work on this agenda item should continue at the next session of the Conference. It was recommended that the Conference on Disarmament re-establish the Ad Hoc Committee on the Prevention of an Arms Race in Outer Space with an adequate mandate at the beginning of the 1991 session, taking into account all relevant factors, including the work of the Committee since 1985.

CONFERENCE ON DISARMAMENT

CD/1059
14 February 1991

Original: ENGLISH

Mandate for an Ad Hoc Committee under item 5 of the agenda of the Conference on Disarmament entitled "Prevention of an Arms Race in Outer Space"

(Adopted at the 582nd plenary meeting on 14 February 1991)

In the exercise of its responsibilities as the multilateral disarmament negotiating forum in accordance with paragraph 120 of the Final Document of the first special session of the General Assembly devoted to disarmament, the Conference on Disarmament decides to re-establish an Ad Hoc Committee under item 5 of its agenda entitled "Prevention of an arms Race in Outer Space".

The Conference requests the Ad Hoc Committee, in discharging that responsibility, to continue to examine, and to identify, through substantive and general consideration, issues relevant to the prevention of an arms race in outer space.

The Ad Hoc Committee, in carrying out this work, will take into account all existing agreements, existing proposals and future initiatives as well as developments which have taken place since the establishment of the Ad Hoc Committee, in 1985, and report on the progress of its work to the Conference on Disarmament before the end of its 1991 session.

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CONFERENCE ON DISARMAMENT

CD/1073
12 March 1991

Original: ENGLISH

LETTER DATED 8 MARCH 1991 FROM THE PERMANENT REPRESENTATIVE OF CANADA ADDRESSED TO THE SECRETARY-GENERAL OF THE CONFERENCE ON DISARMAMENT TRANSMITTING COMPENDIA ON OUTER SPACE COMPRISING PLENARY STATEMENTS AND WORKING PAPERS FROM THE 1990 SESSION OF THE CONFERENCE ON DISARMAMENT */

In a brief plenary statement on 14 March to the Conference on Disarmament, we will announce that we are once again making available the next in our series of compendia on outer space, comprising plenary statements and working papers from the 1990 session of the Conference. As you know, similar documents have been distributed every year since 1985 and, with recent additions, these compendia bring together documentation covering the period 1962-1990.

I should be grateful if the necessary arrangements could be made for the distribution of the compendia to the members of the Conference on Disarmament.

Yours sincerely,

(Signed) Gerald E. Shannon
Ambassador and
Permanent Representative

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*/ A limited distribution of this compendia in English only has been made to the members of the Conference on Disarmament. A few additional copies are available from the Permanent Mission of Canada at Geneva.

CONFERENCE ON DISARMAMENT

CD/1087
8 July 1991

Original: ENGLISH

LETTER DATED 8 JULY 1991 FROM THE DEPUTY REPRESENTATIVE OF THE UNITED STATES OF AMERICA ADDRESSED TO THE PRESIDENT OF THE CONFERENCE ON DISARMAMENT TRANSMITTING A STATEMENT DELIVERED ON 25 JUNE 1991, BY AMBASSADOR DAVID J. SMITH, CHIEF UNITED STATES NEGOTIATOR FOR THE DEFENSE AND SPACE TALKS, IN THE AD HOC COMMITTEE ON PREVENTION OF AN ARMS RACE IN OUTER SPACE OF THE CONFERENCE ON DISARMAMENT

I have the honour to forward to you the attached Statement to the Outer Space Committee of the Conference on Disarmament, delivered on 25 June 1991, by Ambassador David J. Smith, Chief United States Negotiator for the Defense and Space Talks.

I request that you take the appropriate steps to register this Statement as an official document of the Conference on Disarmament and to have it distributed to all member delegations and non-member States participating in the work of the Conference.

(Signed) M. Lyall Breckon
Deputy Representative of the
United States of America to
the Conference on Disarmament

GE.91-61689/0732H

Statement to the Outer Space Committee
of the Conference on Disarmament
25 June 1991

by

Ambassador David J. Smith
Chief United States Negotiator
for the Defense and Space Talks

Mr. Chairman,

I

When I last had the privilege of addressing the Conference on Disarmament on the status of the Defense and Space Talks, I began by stressing President George Bush's words of 7 February 1990: "In the 1990s, strategic defenses make more sense than ever before." I begin this way again today because so many of the events of the 16 months since those words were spoken have proven them all the more valid.

The President was speaking at the mid-point of a two-year review of the United States Strategic Defense Initiative (SDI) at a time when many rapid changes were occurring in the world. These changes diminished our concern over the possibility of a strategic first strike with ballistic missiles against the United States relative to our growing concern over ballistic missile proliferation and accidental or unauthorized launches. Therefore, in his 29 January 1991, State of the Union Address, President Bush ordered redirection of the SDI programme to "protection from limited ballistic missile strikes, whatever their source".

Though backed by two years of study which began long before anyone imagined there would be a Persian Gulf War, the President's announcement could not be heard but through the thunder of the War. From that perspective, the results of our study and the President's decision were prescient.

President Bush recently summed it all up in a few sentences addressed to the graduating class of the United States Air Force Academy on 29 May 1991:

> "We learned that missile defense works and that it promotes peace and security. In the Gulf we had the technologies of defense to pick up where theories of deterrence left off. The Patriot saved lives and helped keep the coalition together.
>
> And while the Patriot worked well in the Gulf, we must prepare for the missiles more likely to be used by future aggressors. We cannot build a defense system that simply responds to the threats of the past."

II

Despite the overwhelming military force marshalled to enforce United Nations resolutions, notions of deterrence prevented neither the tragic war in the Gulf from starting nor ballistic missiles from being launched. SCUD missiles were fired in the opening days of conflict and targeted at civilian populations. Patriot interceptors defended troops and civilians, and greatly lessened the political terror that the SCUD attacks were designed to spread. The Patriot proved instrumental in containing the conflict, maintaining the international coalition, and possibly shortening the war. And let us not forget the most simple and important fact: the Patriot saved lives.

Yet, had these SCUD missiles been mated with chemical or nuclear warheads, the short-range Patriots could not have intercepted their targets far enough from civilian populations to provide the necessary defence. Far greater human tragedy would have occurred. Further, the SCUD is an old ballistic missile; far more capable missiles have already been developed.

The Patriot originally was designed as a point air defence weapon; it does not have the range, speed and manoeuvrability to intercept more capable, advanced types of ballistic missiles. Its success proved that defensive technology is feasible, but advanced interceptors, much more capable than the Patriot, are required to meet future crises that will involve ever more advanced missile threats.

According to the Secretary of Defense Dick Cheney, by the year 2000, in addition to the United States and Soviet Union, more than two dozen countries will have ballistic missiles; 15 of these countries will have the technical capabilities to produce their own missiles; half of these countries will have, or will be developing, nuclear capability. By 2000, 30 countries will have chemical weapons; 10 will be able to field biological weapons. Many of these countries will have ballistic missiles of various ranges; a few could achieve strategic range. In addition, as we saw in the Gulf War, ballistic missiles can be improved to add to their ranges and capabilities.

Such an environment can only be met with a broad, comprehensive strategy which includes political and diplomatic measures as well as defences. The United States is dedicated to strengthening and expanding the Missile Technology Control Regime and the Non-Proliferation Treaty, supporting the work of the Australia Group and advancing President Bush's Middle East arms control proposal. With dedication from all of us, we can expect to build upon the successes these efforts have already achieved. Still, experience and common sense suggest that these efforts alone cannot stop all proliferation. The introduction of modest, effective defences will complement the MTCR and other diplomatic efforts to deter missile proliferation.

III

America's new approach to ballistic missile defence, announced by President Bush on 29 January, is called Global Protection Against Limited Strikes (GPALS). Half the size of the original SDI "Phase I" plan, the GPALS architecture shifts the focus of strategic ballistic missile defence away from deterrence of a strategic ballistic missile attack to protection against the emerging and limited ballistic missile threat. Because it is limited in scope and scale, GPALS will not threaten the Soviet strategic retaliatory capability, an oft-stated Soviet concern over SDI. Therefore, given improving United States-Soviet relations and growing concern for ballistic missile proliferation and accidental and unauthorized launch, GPALS represents an appropriate approach to defences based on the evolving international environment.

A GPALS defence would include various sensors and three ground- and space-based interceptors to ensure global coverage against missiles of all ranges:

- Space- and surface-based sensors to provide global, continuous surveillance and tracking, from launch to intercept, of ballistic missiles of all ranges - theatre to strategic. This is a crucial element for a successful global defence.

- Surface-based, non-nuclear, transportable, kinetic interceptors to protect United States forces deployed abroad and United States allies and friends against ballistic missiles of theatre range.

- Space-based, non-nuclear, kinetic interceptors to provide continuous, global interception capability against missiles with ranges in excess of 500-1,000 km (300-600 miles). Thus, the space-based element will protect the United States, allies and friends against both theatre and strategic missiles and will provide the broadest, most effective global coverage.

- Finally, surface-based, non-nuclear, kinetic interceptors located in the United States to protect the United States from ballistic missiles of all ranges.

IV

Any meaningful deployment of ballistic missile defences will require a change in the legal regime established by the ABM Treaty. Therefore, although the world has changed, and our Program adjusted accordingly, our goal in the Defense and Space Talks remains consistent. We seek to negotiate a cooperative transition to allow increased reliance on strategic ballistic missile defences.

Over the six year history of our Talks, we have explained to our Soviet colleagues that, despite the best of intentions, the ABM Treaty did not yield the stability nor the reductions in strategic offensive arms its framers intended. It is not the ABM Treaty but the improved relationship

between the United States and the Soviet Union that is about to bring us the first ever agreement for stabilizing reductions in strategic offensive forces. Deployment of strategic defences would further enhance stability. We believe this argument is, and will remain, valid.

We also continue to believe that, in concert with reductions in strategic offensive arms, effective defences would greatly reduce any strategic benefits a side might obtain by cheating on international arms reductions agreements. Defences would help deter the proliferation of ballistic missile technology and devalue the potential political and military leverage of ballistic missiles - long thought to be the terror weapons of choice.

The proliferation of ballistic missile technology, underscored by the lessons learned from the Gulf War, confirms our conclusion that the regime established by the ABM Treaty must be changed. Positive changes in United States-Soviet relations, the need to address a truly mutual concern, and a United States ballistic missile defence programme which averts stated Soviet concerns may now provide a real opportunity for success in our negotiations. I stress that a negotiated cooperative transition is our goal. This is why we have been engaged in the Defense and Space Talks for six years and remain committed to their future.

V

The United States continues to offer a mechanism, the United States Defense and Space Treaty, to permit deployment of defences beyond the ABM Treaty following three years' discussion of specific measures for implementing a cooperative transition. Such a process of negotiation and discussion of concrete measures is far preferable to withdrawal from the ABM Treaty under the supreme interests provision found in article XV of that Treaty. The United States approach is measured, reasonable and appropriate.

We also understand full well that the negotiated cooperative transition we seek cannot be built in a vacuum but requires a sound foundation of trust. Therefore, another United States approach in the Defense and Space Talks is ensuring predictability in the development of the United States-Soviet strategic relationship which has up to now been characterized by secrecy. In contrast, openness makes the strategic relationship predictable, averting miscalculation and technological surprise, and thus is stabilizing.

To encourage openness, the United States has proposed a number of predictability measures designed to create a better understanding of strategic ballistic missile defence activities as early as the research stage - years before the appearance of advanced defences in the field. These United States measures include annual exchanges of data, meetings of experts, briefings, visits to laboratories, observations of tests, and ABM test satellite notifications.

As a demonstration of the United States approach and commitment to openness, at the Wyoming Ministerial in September 1989, Secretary of State Baker invited a group of Soviet experts to visit two United States laboratories conducting SDI research. In December 1989, 10 Soviet experts

visited the Alpha Chemical Laser at the TRW facility at San Juan Capistrano, California, and the BEAR Neutral Particle Beam Experiment at the Los Alamos National Laboratory, New Mexico. The Soviet guests saw hardware up close and had an opportunity to ask questions of United States scientists conducting the research.

To continue the momentum, Secretary Baker took further initiatives. In the spring of 1990, the United States proposed that the United States and Soviet Union conclude a free-standing executive agreement on these measures. Later in 1990, the United States proposed pilot implementation of United States predictability measures - a "trial-run". And last fall, the United States proposed that the two sides conduct "dual pilot implementation" - the United States would demonstrate its proposed predictability measures, and the Soviet Union would demonstrate its measures.

The United States remains committed to reciprocal openness in this area which we believe would be inherently stabilizing, consistent with the developing trends in United States-Soviet relations. We also believe that early conclusion of a free-standing predictability measures agreement would afford us the opportunity to build greater trust upon which we could construct even greater successes in the Defense and Space Talks.

VI

With the proliferation of ballistic missile technology growing near Soviet borders, and with our GPALS plan, the United States believes Soviet attitudes should evolve to permit defences against mutual concerns. Although to date there has been no shift in the official Soviet position on the deployment of defences beyond the narrow limits of the ABM Treaty, we continue to see evidence of an internal Soviet discussion over the role of ballistic missile defences. In addition, missile defence is more consistent with the new Soviet emphasis on "defensive doctrine". Thus, incentives exist for the Soviets to join with us to explore constructive measures to counter emerging threats.

The changes in the international environment, the lessons learned from the Gulf War, the improvement in United States-Soviet relations, and the shift to a defensive doctrine in the Soviet Union all should encourage our Soviet colleagues to consider relaxation of ABM Treaty constraints to meet mutual concerns.

There is considerable reason for optimism in the Defense and Space Talks. Here in Geneva, following the signing of the START Treaty, Presidents Bush and Gorbachev, in their June 1990 Washington Joint Summit Statement, committed the United States and USSR to seek an "appropriate relationship between strategic offences and defences". This is a good sign. Soon, the United States and the Soviet Union will begin to construct this new regime that could permit greater reliance on defences. This commitment should enable the sides to build upon improving relations and achieve success in future Defense and Space Talks to deal cooperatively with the evolving international environment.

CONFERENCE ON DISARMAMENT

CD/1088
8 July 1991

Original: ENGLISH

LETTER DATED 27 JUNE 1991 FROM THE PERMANENT REPRESENTATIVE OF CANADA ADDRESSED TO THE SECRETARY-GENERAL OF THE CONFERENCE ON DISARMAMENT TRANSMITTING THE ARMS CONTROL VERIFICATION OCCASIONAL PAPER NO. 7, ENTITLED "SATELLITES HARMING OTHER SATELLITES"*

During my plenary statement on 25 June I referred briefly to the questions of terminology and confidence-building measures in relation to the Prevention of an Arms Race in Outer Space. In this connection I have the honour of making available 112 copies, in English, of the Arms Control Verification Occasional Paper No. 7, entitled "Satellites Harming Other Satellites" by Dr. Peter Hughes, which explores a number of ambiguities concerning operations in space, analyses the concept of harm and touches on certain proposals for CMBs such as keep out zones and verification in space. I would be grateful if you would arrange for the distribution of these booklets to members of the Conference and to observers under a CD number. The French version will be available shortly.

(signed) Gerald E. Shannon
Ambassador and
Permanent Representative

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* A limited distribution of this brochure in English only has been made available to the members and non-members invited to participate in the work of the Conference on Disarmament. The French version will be available shortly.

GE.91-61695/0729H

CONFERENCE ON DISARMAMENT

CD/1092*
CD/OS/WP.46
1 August 1991

ENGLISH
Original: FRENCH

WORKING PAPER

FRANCE

PREVENTION OF AN ARMS RACE IN SPACE: CONFIDENCE-BUILDING MEASURES AND TRANSPARENCY

In its arms control and disarmament plan of 3 June 1991 (CD/1079), France reaffirmed the need for "the development of **outer-space confidence-building measures** in the form of a 'code of conduct' for civilian and military satellites". In addition, it proposed the establishment of **regional agencies responsible for transparency**, which could receive and use satellite images in the context of regional agreements on confidence and security.

The objectives to which these proposals are directed are well known. They underlay the French memorandum on the military uses of space submitted to the Conference on Disarmament on 14 April 1983 (CD/375). This memorandum advocated the progressive development of a stable and clear space regime, by means of the strengthening of the existing system of information on space objects and promotion of the principle of immunity granted to certain space objects. France, which upholds its 1978 proposal for an international satellite monitoring agency (ISMA) and its 1988 proposal for a satellite image processing agency (SIPA), is convinced that a regional approach to the use of satellite images could make a decisive contribution to strengthening confidence and security.

The approach proposed by France would, in its view, enhance the security of peaceful activities in space (and indirectly prevent the use of space for

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* Re-issued for technical reasons

GE.91-62149/1054H

aggressive purposes), while at the same time, by harnessing space for the purpose of confidence and security, facilitating access to space by all interested States and promoting cooperation in space for civilian and scientific purposes.

I - CONFIDENCE-BUILDING MEASURES IN SPACE

In France's view, any legal regime of confidence-building measures must be based on the principle of **non-interference** with non-aggressive activities in space, the strengthening of the 1975 Convention on the **registration** of space objects and the drawing up of a **"code of conduct** in space", which might be complemented by measures to provide information on the occasion of the **launching** of space objects.

1 - The principle of non-interference

With the rise in the quantity of orbiting space objects and the number of space Powers, as well as in potentially dangerous technological capabilities, the risks to security in space activities increase. France considers that the time has come to lay down a more reliable regime for satellites in orbit.

As has been shown by the discussions in the Ad Hoc Committee on the Prevention of an Arms Race in Outer Space, one of the essential concerns is that of how to protect satellites which merit protection. Consequently, France wishes to propose a **criterion whereby a satellite is or is not protected depending on its aggressive capacity.** In this way, a satellite possessing a capability for active interference would enjoy no protection.

On the model of the immunity mutually granted by the two main space Powers to their "national means of verification" of their bilateral disarmament agreements (in view of the fact that these space facilities play a stabilizing function), France considers that the principle of non-interference would constitute a first step towards **internationally recognized immunity** of satellites. Within the Ad Hoc Committee on the Prevention of an Arms Race in Outer Space, the discussion might focus, on the one hand, on the **technical parameters** to be used to determine a satellite's capability for active interference, and, on the other hand, on the possible **juridical formulation** of the principle of non-interference.

2 - Strengthening of the 1975 Convention on the registration of space objects

The 1975 registration Convention, which was initially designed as a way of facilitating the application of the 1972 Convention on International Liability for Damage Caused by Space Objects, offers considerable potential

for enhancing the transparency of space activities, which is vital for any regime to promote confidence. Currently, the register set up under article IV requires only the following information concerning each space object:

- Name of launching State;
- Registration number;
- Date and location of launch;
- Basic orbital parameters (nodal period, inclination, etc.);
- General function of the space object.

In order to enhance knowledge of spacecraft, and in particular to clarify responsibilities in the event of an incident, France proposes that the register should also include the following information:

- **The orbital characteristics of each satellite;**
- **Details of its manoeuvrability;**
- **Information on energy sources available on board;**
- **Certain other functional characteristics (mass, size, expected life of the space vehicle).**

This could give concrete form to the possibility - provided for in article IV, paragraph 2 of the Convention - of furnishing the United Nations Secretary-General with additional information relating to the space object. In France's view, this broadening of the scope of the register should be effected on a voluntary, negotiated basis among the States parties. This would be in keeping with the proposals already made, inter alia, by Australia and Canada in 1988 (CD/OS/WP.25), Poland in 1989 (CD/OS/WP.38) and Argentina in 1990 (CD/1015 - CD/OS/WP.42), as well as the Federal Republic of Germany (Ad Hoc Committee, 17 July 1990). The latter proposed in particular that further information should be added to the register (**authority responsible for launch and for control, presence or absence of weapons on board**). France stands ready to give favourable consideration to adding these details to the registration Convention, as well as the possibility of informing the United Nations Secretary-General of **launch forecasts.**

Furthermore, since experience to date has been unsatisfactory, France calls upon the States parties to reduce the **time taken to notify** the Secretary-General of information and to **update** such information regularly. Lastly, it seeks an increase in the number of States parties to the Convention.

3 - Rules of behaviour

The aim of a **"code of conduct"**, as advocated by France (CD/937) and by Germany (CD/PV.345 and 516), is to guarantee the security of space activities while preventing the use of space for aggressive purposes. From the viewpoint of the prevention of an arms race, what is most important is to be able at any time to distinguish an incident of fortuitous or accidental origin from the result of specific aggression. To that end, it is suggested that a set of rules of behaviour should be drawn up, which might include:

- an obligation to **regularly update orbital parameters** declared at the time of registration, to take account of manoeuvres and drift;
- respecting **minimum distances** between two satellites placed in the same orbit (in order to avoid not only accidental collisions but also short-range co-orbital tracking, which is a precondition for the system of space mines);
- monitoring of **short-range intersections** (also to limit risks of collision or interference).

Combined with a strengthened registration procedure, such a set of rules should provide better information on a continuous basis concerning potential threats to each satellite, and prevent aggression by making it impossible for such aggression to go unpunished because of failure to determine its precise origin. These rules might be supplemented by:

- the above-mentioned measure relating to **information on launches scheduled** by States;
- a procedure providing for **requests for explanations** in the event of an incident or suspicious activities;
- the identification of **keep-out zones** in the form of two spherical zones moving with each satellite:
  - a **proximity** zone to delimit the location of each space object in reciprocal orbit, as well as the capabilities of each object to move with respect to the others;
  - a wider **approach** zone, with obligatory notification for passage through it.

4 - Measures to provide information on the occasion of the launching of space objects

In 1989, Poland suggested (CD/OS/WP.38) that it would be useful, in the field of the prevention of an arms race in outer space, to draw on experience

built up in the application of confidence-building and security-building measures by the States participating in the CSCE. Specifically, Poland proposed measures for the exchange of information and observations on the occasion of launches of space objects. France stands ready to give favourable consideration to a measure providing for **assessment visits** at the launch site or orbital control site of a registered space object. It is aware of the possible difficulties or objections that such a measure might prompt, and considers that such visits should take place on a voluntary basis: only a State which had expressly agreed to such an inspection could be visited.

Hence France proposes that the Ad Hoc Committee on the Prevention of an Arms Race in Outer Space should give thought to the circumstances in which such measures might be feasible, drawing on experience accumulated within the CSCE framework.

II - SPACE AND TRANSPARENCY

As the French arms control and disarmament plan states, "information is the prime condition of confidence". In order to allow the smooth operation of a system of confidence-building measures in space, France proposed in 1989 (CD/937) the establishment of a **centralized trajectography system.** Moreover, as the potential contribution of satellite images in the implementation of regional agreements on security and confidence is increasingly widely recognized, France proposes the establishment of **regional agencies responsible for transparency.**

A - The international trajectography centre (UNITRACE)

Compliance with and effective application of the broadened rules for registration and the rules of behaviour that would be drawn up under a regime of confidence-building measures imply the establishment of an international management tool with the function of accumulating all the information gathered and making it available to satellite managers. Since it would be designed to alert the States concerned in the event of threatened incidents and to supply evidence of good or bad faith in the event of an incident (which would minimize the risk of international disputes), it should meet the requirement of transparency and be in permanent possession of updated information concerning the trajectories of space objects.

At the same time, if it is to be acceptable to satellite-owning States, such a centre should be able to observe a degree of confidentiality in respect

of military activities in space. Under the auspices of the United Nations Secretariat, it would have the following functions:

collection of data for updating registrations;

monitoring of space objects;

real time calculation of all available trajectories.

It would keep the information without distributing it and would alert only the State or States concerned where necessary.

The proposal recently put forward by Canada (CD/1088) whereby all space objects would be equipped with beacons to enable them to be identified at all times deserves thorough study, since, if it was proved to be feasible, it might considerably facilitate the task of an international trajectography centre.

B - Regional agencies responsible for transparency

France has long considered that the pooling of information gathered by satellites can make an effective contribution to transparency, which is itself a vital component of security. This was the objective France sought when it proposed to the United Nations in 1978 an international satellite monitoring agency (ISMA), and in 1988 a satellite image processing agency (SIPA). Noting that the regional approach to disarmament and security is increasingly widely recognized as essential by the international community, France considers that the implementation of regional agreements on confidence and security could draw to an increasing extent on the use of satellite images. This approach links up with the philosophy of the "PAXSAT-B" concept put forward by Canada in 1987 (CD/PV.410).

Taking the example of Europe, which already has experience in the application of a regional system of confidence- and security-building measures, and which has recently strengthened the institutional machinery underpinning that system (cf. documents CD/1043: Charter of Paris for a New Europe, and CD/1070: Vienna Document on confidence- and security-building measures in Europe), it is France's wish that the existing CSCE Conflict Prevention Centre should shift towards a transparency function, in particular through the use of the data generated by an "Open Skies" agreement and by satellite images. It suggests that the other regions should make provision for the use of such machinery under regional agreements on confidence and security.

France itself, which is convinced that improved information can enhance security, is prepared to **contribute** to the establishment and operation of such regional agencies in three forms:

assistance in **training specialists** in the interpretation of satellite data;

study of the possible structure and size of the **reception facilities** (engineering) which might be made available to States participating in such agencies;

initiation of more far-reaching consideration of the question of access to data and satellite information and **discussions with other countries producing space images,** with a view to possible agreements to supply regional agencies at their request with the information they need to perform their tasks.

Discussions in the Conference on Disarmament in recent years have shown that the great and urgent need for thorough consideration of the establishment of a regime of confidence-building measures in space are increasingly recognized by the international community. Among the topics tackled by the Ad Hoc Committee on the Prevention of an Arms Race in Outer Space, it would seem that this is the topic offering the best prospects for the future. France hopes that its contribution, together with that of other member States, will contribute to progress towards a consensus in this field.

CONFERENCE ON DISARMAMENT

CD/1105
23 August 1991

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REPORT OF THE AD HOC COMMITTEE ON PREVENTION OF AN ARMS RACE IN OUTER SPACE

I. INTRODUCTION

1. At its 582nd plenary meeting on 14 February 1991, the Conference on Disarmament adopted the following decision:

> "In the exercise of its responsibilities as the multilateral disarmament negotiating forum in accordance with paragraph 120 of the Final Document of the First Special Session of the General Assembly devoted to disarmament, the Conference on Disarmament decides to re-establish an Ad Hoc Committee under Item 5 of its agenda entitled 'Prevention of an arms race in outer space'.
>
> The Conference requests the Ad Hoc Committee, in discharging that responsibility, to continue to examine, and to identify, through substantive and general consideration, issues relevant to the prevention of an arms race in outer space.
>
> The Ad Hoc Committee, in carrying out this work, will take into account all existing agreements, existing proposals and future initiatives as well as developments which have taken place since the establishment of the Ad Hoc Committee, in 1985, and report on the progress of its work to the Conference on Disarmament before the end of its 1991 session."

2. In that connection a number of delegations made statements regarding the scope of the mandate.

II. ORGANIZATION OF WORK AND DOCUMENTS

3. At its 582nd plenary meeting on 14 February 1991, the Conference on Disarmament appointed Ambassador Roberto García Moritán of Argentina as Chairman of the Ad Hoc Committee. Mr. Vladimir Bogomolov, Political Affairs Officer, United Nations Department for Disarmament Affairs, served as the Committee's Secretary.

GE.91-62396

4. The Ad Hoc Committee held 17 meetings between 26 February and 20 August 1991.

5. At their request, the Conference on Disarmament decided to invite the representatives of the following States not members of the Conference to participate in the meetings of the Ad Hoc Committee: Austria, Chile, Colombia, Costa Rica, Denmark, Finland, Greece, Ireland, Malaysia, New Zealand, Norway, Oman, Portugal, Senegal, Spain, Switzerland, Syria, Turkey, United Arab Emirates, Uruguay, Viet Nam and Zimbabwe.

6. In addition to the documents of the previous sessions 1/, the Ad Hoc Committee had before it the following documents relating to the agenda item submitted to the Conference on Disarmament during the 1991 session:

CD/1059	Mandate for an Ad Hoc Committee under item 5 of the agenda of the Conference on Disarmament entitled "Prevention of an Arms Race in Outer Space".
CD/1073	Letter dated 12 March 1991 addressed to the Secretary-General of the Conference on Disarmament from the Permanent Representative of Canada, transmitting compendia on Outer Space comprising plenary statements and working papers from the 1990 session of the Conference on Disarmament.
CD/1087	Letter dated 8 July 1991 addressed to the President of the Conference on Disarmament from the Deputy Representative of the United States to the Conference on Disarmament transmitting a statement delivered on 25 June 1991 by Ambassador David J. Smith, Chief United States Negotiator for the Defence and Space Talks in the Ad Hoc Committee on Prevention of an Arms Race in Outer Space of the Conference on Disarmament.
CD/1088	Letter dated 27 June 1991 addressed to the Secretary-General of the Conference on Disarmament from the Permanent Representative of Canada, transmitting the Arms Control Verification occasional paper No. 7, entitled "Satellites Harming Other Satellites."
CD/1095	Letter dated 5 August 1991 addressed to the Secretary-General of the Conference on Disarmament from the Permanent Representative of Canada, transmitting the Arms Control Verification Occasional Paper No. 6, entitled "Overhead Imaging for Verification and Peacekeeping: Three Studies".
CD/OS/WP.43	Programme of Work.

1/ The list of documents of the previous sessions may be found in the 1985, 1986, 1987, 1988, 1989 and 1990 reports of the Ad Hoc Committee, and in the special report to the third special session of the General Assembly devoted to disarmament (CD/642, CD/732, CD/787, CD/870, CD/834, CD/956 and CD/1039, respectively).

CD/OS/WP.44 Working paper entitled "Status of Treaties Relating to Space Activities", submitted by the Secretariat.

CD/OS/WP.45 Working paper entitled "The concept of confidence-building and predictability measures in space activities of States", submitted by the Soviet Union.

CD/1092
CD/OS/WP.46 Working paper entitled "Prevention of an arms race in outer space: Confidence Building Measures and Transparency", submitted by France.

CD/OS/WP.47 Working paper entitled "The Problem of Debris and Military Activities in Space", submitted by Italy.

CD/OS/WP.48 Working paper entitled "Confidence and Security Building in a Protection Regime for Outer Space", submitted by Germany.

CD/OS/WP.49 Working paper entitled "Terminological issues relevant to the prevention of an arms race in outer space", submitted by the Friend of the Chairman, The Hon. A. Monckton of the United Kingdom of Great Britain and Northern Ireland Delegation

CD/OS/WP.50 Working paper entitled "Issues related to ASATs", submitted by the Friend of the Chairman, Dr. M. Karem of the Delegation of Egypt

CD/OS/WP.51 Working paper entitled "Confidence-building measures in space activities", submitted by the Friend of the Chairman, Mr. M. Antuykhin of the Delegation of the Union of Soviet Socialist Republics

III. SUBSTANTIVE WORK DURING THE 1991 SESSION

7. Following an initial exchange of views and consultations on the programme and organization of work held by the Chairman with various delegations, the Ad Hoc Committee, at its 1st meeting on 26 February 1991 adopted the following programme of work for the 1991 session:

"1. Examination and identification of issues relevant to the prevention of an arms race in outer space;
2. Existing agreements relevant to the prevention of an arms race in outer space;
3. Existing proposals and future initiatives on the prevention of an arms race in outer space.

In carrying out its work with a view to finding and building upon areas of convergence, the Ad Hoc Committee will take into account developments which have taken place since the establishment of the Committee in 1985."

8. With regard to the organization of work, the Ad Hoc Committee agreed that it would give equal treatment to the subjects covered by its mandate and specified in its programme of work. Accordingly, the Committee agreed to

allocate the same number of meetings to each of those subjects, namely, issues relevant to the prevention of an arms race in outer space, existing agreements and existing proposals and future initiatives. It was noted that any member wishing to do so may discuss any subject important and relevant to the work of the Committee.

9. The work of the Ad Hoc Committee was governed by the mandate which aims at the prevention of an arms race in outer space.

10. A general exchange of views was held during the 17 meetings which the Ad Hoc Committee devoted to substantive work including the presentation and examination of specific proposals for measures. All the delegations welcomed the prompt re-establishment of the Ad Hoc Committee and the new methodological approach applied.

11. To enhance the functioning of the Committee in qualitative terms during the first part of the annual session three non-binding indicative lists of topics based on the main aspects considered in 1990 were circulated by the Chairman. The debate in the Committee dealt inter alia with the subjects referred to in the Chairman's lists of topics relating to the three items on the programme of work and attached in the Annex.

12. In the second and third part of the annual session the work of the Committee was facilitated through the assistance of Friends of the Chairman who were appointed to deal with the following specific issues in open-ended consultations:

a) terminological aspects related to prevention of an arms race in outer space (The Hon. Anthony Monckton, Delegation of the United Kingdom of Great Britain and Northern Ireland)

b) issues related to verification of ASATs (Dr. M. Karem, Delegation of Egypt)

c) confidence-building measures including improvement of existing and future databases relating to space activities (Mr. M. Antuykhin, Delegation of the USSR)

Each Friend of the Chairman presented, at the end of the session, a report containing the preliminary outcome of those consultations. Those reports are contained in the following working papers:

CD/OS/WP.49 entitled "Terminological issues relevant to the prevention of an arms race in outer space"

CD/OS/WP.50 entitled "Issues related to ASATs"

CD/OS/WP.51 entitled "Confidence-building measures in space activities"

It was understood that those reports were presented by the Friends of the Chairman under their own responsibility, without prejudice to positions of

delegations, with the aim of facilitating any future consideration of the issues.

13. The Committee also benefitted from the scientific and technical contributions of experts from various delegations who addressed the specific issues and initiatives under consideration in the Committee relevant to the prevention of an arms race in outer space.

A. Examination and identification of issues relevant to the prevention of an arms race in outer space

14. There was general recognition of the importance of the bilateral negotiations between the Union of Soviet Socialist Republics and the United States of America and it was stressed that bilateral and multilateral efforts were complementary. Many delegations emphasized that those negotiations did not diminish the urgency and the importance of multilateral efforts and reaffirmed that, as provided for in General Assembly resolution 45/55A, the Conference on Disarmament, as the single multilateral disarmament negotiating forum, had the primary role in the negotiation of a multilateral agreement or agreements, as appropriate, on the prevention of an arms race in outer space in all its aspects.

15. The Group of 21 considered that there was an urgent need to address this important agenda item so as to achieve progress. For this reason, the Group took a flexible position on the question of the programme of work although it would have preferred the Committee to work under a negotiating mandate. It was felt that the new methodology applied to the work of the Committee would create new opportunities to advance from generality to specificity, allowing the Committee to enhance its functioning in qualitative terms.

16. The Group of Western States welcomed the adoption of the same programme of work as in the previous years and equal allocation of time between the three main items of the programme of work. It thought that this formal framework implemented with due flexibility provided the best structure for the discussions while enabling each delegation that so wished to express its position and to make a contribution to the common search for areas of convergence envisaged in the programme of work.

17. Many delegations of the Group of 21 underlined that in an era where the confrontation between the United States and the Union of Soviet Socialist Republics had eased, other states on planet earth had reasons to hope that arms deployed on ground would not be supplemented with a threat from space that would provoke a counter and help in spiralling the arms race further into outer space.

18. Many delegations reiterated that outer space was the common heritage of mankind and as such should be used exclusively for peaceful purposes, thus making it of vital importance to prevent an arms race in outer space. They pointed out that to date the Conference had performed useful work in identifying and clarifying the various aspects of this complex item and had before it numerous proposals aimed at perfecting the existing legal régime. In their view, the Conference should urgently fulfil its role by elaborating new instruments of a legal character which would, in an all-embracing and multilateral way, tackle the issue of the non-militarization of outer space.

19. Some delegations belonging to the Group of Eastern European and other States reiterated that the issues of prevention of an arms race in outer space by joint efforts of all members of international community had a key meaning for international security and for strengthening of strategic stability. They considered necessary to provide on this track of disarmament a fruitful combination of multilateral and bilateral approaches. In their view, at the present time, the Conference on Disarmament was the most appropriate forum for arrangements to keep outer space free from weapons.

20. One delegation of the Western Group, having recalled the interpretation of the 1967 Outer Space Treaty according to which that instrument did not prohibit all military activities in space, stated that some stabilizing military activities deserved to remain authorized. Besides, it was sometimes impossible to distinguish some civil activities from military ones. Therefore, it was preferable to concentrate on the prevention of any aggressive use of space. Moreover, that delegation stressed the difficulties of a comprehensive prohibition of antisatellite weapons as such, since any space objects and ballistic missiles, as well as many ground-based systems, had potential antisatellite capabilities.

21. One delegation of the Group of 21 pointed out that "peaceful" could not be equated with non-aggressive and it could only be interpreted to exclude "military uses".

22. One delegation belonging to the Western Group said that the role of the Ad Hoc Committee and that of UNCOPUOS were separate and distinct. If the Ad Hoc Committee was to make any progress the same delegation suggested that two areas merited further study: definition and verification. A glossary of terms and definitions would provide the Committee with a more solid foundation for its discussions. Equally no arms control agreement in space could hope to be sustainable without effective verification.

23. One delegation not belonging to any Group held the view that the prevention of an arms race in outer space and the peaceful utilization of it was the common aspiration of mankind. It reiterated that its State had all along been opposed to the arms race in outer space and stood for the complete prohibition and thorough destruction of all kinds of space weapons. It pointed out that in spite of the preliminary achievements in the nuclear and conventional disarmament, the arms race in outer space between the two major space powers had not ended but on the contrary had taken on a new trend. Hence preventing an arms race in outer space had become a major task in the field of disarmament. In its view the arms race in outer space based on the latest development in science and technology was a qualitative escalation of the arms race in nature, which not only posed a threat to international peace and security but was also detrimental to the activities aimed at the peaceful use of outer space. Furthermore, it considered that it would have an adverse effect on the disarmament process. Confronting with such a reality it stood to reason for the international community to demand that the two countries with the largest space capabilities bear special responsibilities in preventing an arms race in outer space. It took note of the bilateral negotiations on space issues between the two major space powers and pointed out that so far nothing substantive had been achieved. It held the view that in order to effectively prevent an arms race in outer space it was necessary that the two countries with the largest space capabilities should immediately adopt practical measures in undertaking not to develop, test and deploy any types of space weapons and destroy all the existing ones, including both anti-ballistic missiles and anti-satellite weapons, and on the basis of this, conduct serious negotiations with a view to concluding an agreement that completely bans all space weapons. While stressing the importance of the existing international legal instruments, it pointed out their insufficiency as well as the need to negotiate new international legal instruments. It stated that as the sole multilateral forum of disarmament negotiations, the Conference on Disarmament should start as soon as possible negotiations on an international convention on the complete prohibition of outer space weapons and on the prevention of arms race in outer space.

24. The Group of 21 emphasized the need for in-depth treatment of matters under item 3 of the work program "Existing proposals and future initiatives on the prevention of an arms race in outer space".

25. Members of the Group of 21 having brought up certain comprehensive proposals, pointed out that there was a need to further analyse limitations of

article IV of the Outer Space Treaty under the perspective of the régime applicable to outer space as distinct from the one confined to the moon and other celestial bodies. Some proposals related to an amendment of the Outer Space Treaty and to transforming it into a comprehensive Treaty.

26. As to confidence-building measures, the Group of 21 recalled United Nations General Assembly resolution 45/55 B, which reaffirms the importance of confidence-building measures as a means conducive to ensuring the attainment of the objective of the prevention of an arms race in outer space and recognizes their applicability in the space environment under specific criteria yet to be defined.

27. According to many delegations there appeared to be a general recognition that the Committee could usefully consider confidence-building measures including data-base improvements relevant to the mandate of the Committee and in consonance with evident complementarities of bilateral and multilateral efforts in this area.

28. Members of the Group of 21 consistently addressed the question of a comprehensive ban of anti-satellite weapons, including a ban on testing in an ASAT mode of other weapons devices. In the context of measures pertaining to ASATs while recognizing the verification challenges connected with measures to prevent an arms race in outer space, the Group of 21 found it logical that these issues became the subject of more concrete deliberations and negotiations. The Group suggested that it might be useful in that connection to address the question of identifying technical means to support observation and verification functions pertaining to different relevant measures.

29. On the subject of immunity of satellites many delegations stressed an increasingly important role of satellites in a variety of fields. For these delegations the spread of satellite technology had generated enormous opportunities for developments in the field of economic growth and international security and it was imperative that the international community safeguard the increasing positive developments of satellite technology on an urgent basis. It was acknowledged by those delegations that some amount of immunity had been provided to satellites by the 1967 Outer Space Treaty in relationship with Article II, paragraph 4 of the UN Charter. Under bilateral agreements between the United States and the Union of Soviet Socialist Republics protection was also provided by prohibiting interference with national technical means. This régime was on the one hand limited in scope and on the other not universal. Further development of a regime providing for immunity of satellites would not run contrary to the UN Charter.

B. Existing agreements relevant to the prevention of an arms race in outer space

30. Much attention was paid to the principles and provisions of international law relevant to the prevention of an arms race in outer space. Some delegations of the Western Group underlining the central role of the Charter of the United Nations stressed the special significance of paragraph 4 of Article 2 and Article 51. They emphasized that Article 2(4) prohibited the threat or use of force against the territorial integrity or political independence of any State. Complementing Article 2(4), Article 51 permitted States to exercise their inherent right of individual or collective self-defense. These delegations thus concluded that when read together, these two Charter provisions strictly prohibited the use of force in all instances except for individual or collective self-defense.

31. Many delegations recalled that the Outer Space Treaty was a response to the challenges that space technology created in the 1960s. Some of them stressed that the first paragraph of article IV of the Treaty, represented a legal loophole exploited by some space powers to develop a new generation of weapons that could be placed in outer space. There was almost unanimous recognition of the fact that the legal régime did place some limitations on certain weapons and military activities in outer space. However it was equally emphasized that existing legal instruments left open the possibility of the introduction of weapons in space, other than nuclear weapons or other weapons of mass destruction.

32. One delegation of the Group of 21 stated that the Outer Space Treaty of 1967 banned nuclear weapons and other weapons of mass destruction from space. However, there was no legal bar at present to the development of large lasers that some would hope could eventually be capable of countering missiles in their boost phase.

33. Many delegations reiterated that the present legal régime governing outer space was not adequate to guarantee the prevention of an arms race occurring in outer space. It was noted that General Assembly resolution 45/55A recognized the urgency of preventing an arms race in outer space and requested the Conference on Disarmament to undertake negotiations for the conclusion of binding agreement or agreements, as appropriate. While recognizing the significant role played by that régime and the need to consolidate and strengthen it and its effectiveness, several delegations called for the total prohibition of the development, production, stationing, stock-piling and use of space weapons and the destruction or transformation of existing weapons.

34. One delegation of the Western Group believed that the existing legal régime for arms control in outer space was equitable, balanced and extensive. The current regime placed some legal restraints on virtually every type of weapon in outer space and recurring predictions of an impending arms race in outer space had not been borne out. Therefore the allegations of its insufficiency were overstated. A legal régime, in and of itself, was not sufficient to prevent an arms race in outer space because one needed compliance with that regime, its enforcement and participation in that regime.

35. One delegation of the same Group, while recognizing that the existing legal régime was insufficient to prohibit some potentially threatening activities and was partially based on bilateral agreements subject to different interpretations or withdrawal, affirmed that the prohibition to deploy any weapon in space would be neither realistic nor efficient: it could indeed limit some stabilizing activities and at the same time would not take account of the other threats to space activities.

C. Existing proposals and future initiatives on the prevention of an arms race in outer space

36. The Group of 21 recalled its proposal for the Ad Hoc Committee to have a negotiating mandate. The Group held the position that the Committee should focus on concrete proposals for measures with a view to conducting negotiations for the conclusion of an agreement or agreements, as appropriate, to prevent an arms race in outer space in all its aspects.

37. Some delegations of the Western Group, while agreeing to discuss and study the proposals put forward before the Committee, considered that political conditions were not ripe for in-depth negotiations on these proposals, or were not convinced that they were suitable areas for multilateral consideration.

38. It was stressed by some delegations that although so far no armed conflict in outer space had taken place, mankind could not shut the eyes to history and to scientific and technological developments that were taking place and presume that there would not be any such incident in the future. The importance of what had been left uncovered by the Outer Space Treaty and other related measures two decades ago had grown and the shortcomings had become strikingly more evident.

39. One delegation, a member of the Group of 21, stressed that Article IV of the Outer Space Treaty, contained a built-in limitation, as its scope did not extend to banning all types of weapons in outer space. It prohibited inter alia, the placing, installing or stationing of nuclear weapons and other

weapons of mass destruction only. Its provisions did not therefore contain a clear-cut injunction to ensure that outer space is used exclusively for peaceful purposes. In the view of this delegation the principle of exclusive use for peaceful purposes applied only to the Moon and other celestial bodies and the only restriction placed on States parties pertained to the prohibition of the establishment of military bases, installations and fortifications, the testing of any type of weapon and the conduct of military manoeuvres on celestial bodies. The delegation considered that this meant that there was an inherent contradiction in the same article of the Treaty, thereby creating as a result not one but two legal régimes - one applicable to outer space and the other confined to the Moon and other celestial bodies. Therefore it was of the view that the general objective should aim at establishing one legal régime for outer space as well as the Moon and other celestial bodies. It maintained that this could only be realized through a clear-cut provision declaring that outer space shall be used exclusively for peaceful purposes.

40. One delegation reiterated its proposal contained in document CD/851 seeking to amend Article IV of the Outer Space Treaty. It stressed that the proposal was aimed to fill in an important juridical vacuum in the Outer Space Treaty and to prevent the stationing in outer space of weapons other than nuclear and mass destruction weapons.

41. Many delegations of the Group of 21 touched upon the destabilizing aspects of ballistic missile defences. The development, testing and deployment of active space systems, i.e. weapons with direct destructive effects to be used for anti-ballistic or ASAT tests, would run counter to the spirit of the Outer Space Treaty. An ASAT test-ban appeared to be the most effective way of rendering protection to satellites, in comparison with ideas such as creating immunity to the space segment of a satellite system as well as to areas surrounding a satellite. This could also have the advantage of leaving a way out with respect to the difficult questions pertaining to defining the functions of satellites, which might be of dual civil and military character, or could be supportive of both passive and active military systems. It had been proposed by many delegations that the present de facto moratorium by the two major space powers on testing of existing dedicated ASAT-systems, should be formalized. Furthermore, a banning of non-dedicated weapons devices would have to be directed at the testing of such weapons devices in an ASAT-mode. Such a functional approach had had a precedence in the ABM Treaty, which had referred to "testing in an ABM mode". When dealing with identification of technical means to support observation or verification

functions, this could be done in relation to confidence-building measures, leading to more concrete measures to prevent an arms race in outer space.

42. In connection with the reiteration of some proposals for a comprehensive ASAT ban, one delegation of the Western Group stated that it did not believe that verification schemes proposed to date were adequate for this purpose. A key problem was verifying compliance with such an agreement. Another problem concerned the legal issue of how ASAT weapons should be defined and categorized. The delegation reiterated that the existing legal regime placed a wide variety of legal restraints on the nature, deployment and uses of ASATs. It stated that conventionally-armed ASAT weapons that lacked an ABM capability and that were not armed with nuclear weapons were currently not limited by any arms control agreement.

43. Some delegations of the Group of 21 stated that not only were national technical means of verification adequate to detect and verify testing of space weapons in an ASAT mode including the "direct ascent attack mode" but a mutually agreed definition of dedicated ASAT weapon did exist. Once listing of directed energy weapons like ground-based lasers which were a threat to satellites is fully under way, more complex understandings would need to be negotiated. The unconstrained development of ASAT systems was a means of avoiding the limits on BMD development set by the ABM treaty. If lasers could be construed in terms of total brightness, their potential to attack satellites in high orbit would be controlled. It was easily conceivable to impose first use limitations, rules-of-the-road agreements and limited capability restriction on ASATs like dismantling of existing systems and test limits. These elements needed to be put together for a comprehensive ban on satellite intercept capability, which would mean restricting military space activities or undertaking them cooperatively, prohibiting all forms of anti-satellite defences, satellite ballistic missile defence and many offensive and laser systems.

44. One delegation reiterated its proposal (contained in CD/939) to amend Article IV of the Outer Space Treaty so as to make its prohibition applicable to any kind of weapons and to contemplate the negotiation of an Additional Protocol for the purpose of prohibiting the development, production, storage and deployment of anti-satellite weapon systems which were not stationed in outer space. The proposal provided also for a second additional protocol to deal with the verification system to ensure faithful compliance with the obligations assumed by the States Parties.

45. Confidence-building and predictability measures of States' activities in

outer space found positive response of some delegations. In this connection, the concept of "open outer space" was further elaborated by one delegation belonging to the Group of Eastern European and other states. It was proposed that this concept should become a subject of consideration at the Conference on Disarmament. In the view of that delegation the key elements that could form the basis of a future multilateral agreement on confidence-building and predictability measures in space activities of States should include the following measures: 1) the strengthening of the 1975 Convention on Registration of Objects Launched into Outer Space; 2) the elaboration of "rules of the road" - "a code of conduct"; 3) the use of space-based monitoring equipment in the interest of the international community; and 4) the establishment of an International Space Inspectorate. The same delegation suggested that the elaboration of a set of confidence-building measures, transparency and predictability could be the most realistic initial step to keep outer space free from weapons. It circulated at the Committee a working paper entitled "The concept of confidence-building and predictability measures in space activities of States" (CD/OS/WP.45) which had integrated the ideas previously advanced at the Committee.

46. On the question of the functioning of the Registration Convention some delegations reiterated their proposals on the strengthening of the régime established by the Convention. They observed that by providing specific information about the nature and functions of objects launched into space, the Convention constituted an indispensable database for any subsequent development designed to generate confidence in the uses of outer space. These delegations also indicated that the changes in the régime should apply on two levels, one being the scope of the information to be provided and the other the timeliness. Additional parameters and information should be added to the items already present in article IV of the Convention and to that effect a duly mandated Expert Group under the auspices of the Ad Hoc Committee should be entrusted with the responsibility to devise those criteria.

47. Some delegations asserted that the need for data bases was felt by all delegations and the Registration Convention was a source that was now realised to be inadequate. They recalled that several proposals for the extension of data bases relating to space activities had been put forward by delegations from all Groups. Nothing in the Registration Convention prevented the CD or an expert group set up to assist the work of the Ad Hoc Committee as had been proposed by a number of delegations, from examining the information contained in the declarations under the Convention, which was a public registry.

48. In that connection one delegation of the Western Group remarked that although the topic "Registration Convention" was listed under the heading of CBM, the Convention, in its view, was not an arms control or confidence-building instrument. Wider adherence to the Convention and compliance with its current provisions would be the best way of strengthening it.

49. Many delegations touched upon the verification issues indicating that consideration of these questions would constitute an important and integral part of the Committee's work, given the technological, political, commercial and even doctrinal aspects involved in considering a strengthened outer space regime. They reiterated the importance of verification and the desirability of multilateral involvement therein.

50. One delegation, member of the Western Group, put forward views on verification and stated that the inability to construct a suitable and effective verification system could prevent agreements from being finalized. The move towards expanding arms control in outer space would require addressing carefully the problems stemming from the fact that space represented a relatively new medium and posed challenges for arms control, involving capabilities which could be entirely different from, but nevertheless interdependent with those employed on the earth's surface. Major verification problems were likely to arise as a result of the need for worthwhile space regimes to cover not only objects and activities in space but also those on the earth's surface related to space. Both environments should be considered in their interrelationship. This delegation noted that while many countries might have an interest in space, and would thus wish to be equal partners in any agreement, the technical capabilities necessary for satisfactory verification might be available to only a few.

51. Another delegation, also a member of the Western Group, added its support to the above-mentioned position saying that no arms control agreement in space could hope to be sustainable without verification. It suggested that it would be useful to evaluate the cost of some of the proposals already put before the Committee and to consider how these costs might be met.

52. The Head of a delegation to the bilateral Defense and Space Talks spoke to the Committee about the revised approach to ballistic missile defense called "Global Protection Against Limited Strikes" (GPALS). The GPALS shifted the focus of strategic ballistic missile defense away from deterrence of a strategic ballistic missile attack to protection against the emerging and limited ballistic missile threat. A GPALS defense would include various

sensors and three ground and space-based interceptors to ensure global coverage against missiles of all ranges. Any meaningful deployment of BMD would require a change in the legal regime established by the ABM Treaty. This State sought to negotiate within the Defense and Space Talks a cooperative transition to allow increased reliance on strategic BMD. This State continued to offer a mechanism to permit deployment of defenses beyond the ABM Treaty following three years' discussion of specific measures for implementing a cooperative transition.

53. Some delegations made reference to the ABM Treaty. One of them belonging to the Group of 21 noted that various political and technological factors posed important challenges and opportunities for the Treaty regime as it placed restrictions on testing weapons in an ABM mode but permitted weapons to be tested in an ASAT mode. It was due to this lacunae that "direct ascent attack" by ballistic missiles could be considered for offensive purposes. Under the existing legal systems pertaining to space, there was no clear provision that the premeditated development of space based ASAT weapons, or their components or even their stationing violated the law, especially that pertaining to the Outer Space Treaty. For the same delegation some recent experiments and strategic initiatives like the SDI and GPALs raised important questions about compliance with the ABM Treaty.

54. One delegation belonging to the Western Group in its expert presentation introduced the results of the research dealing with definitions and terminology which was called "Harmfulness Indexing" method. Its basic purpose was to attempt to quantify the effectiveness with which any space object could be used as a weapon. In the view of the delegation the method of quantifying harm was well suited to Article IX of the Outer Space Treaty. Another concept of vulnerability indexing dealt with the assessment of a spacecraft's vulnerability to any given threat. The harmfulness indexing methodology provided clues as to what made spacecraft harmful and how this might be regulated through arms control measures. The same delegation presented new approaches to the concept of keep-out zones (KOZ). Past suggestions for K O Z had focused on establishing protected volumes in space such as the concentric spherical shells called "space-fences", while the proposed concept of the "free space" KOZ involved two stipulations: satellites should remain outside the minimum keep away distance at all times and satellites might remain within the flyby distance for a period of time no longer than the maximum flyby time. The delegation viewed the creation of KOZ as an effective confidence-building measure. The installation of beacons on satellites was

suggested as a possible means of ensuring accurate data on their location relative to KOZ.

55. One delegation of the same Group recalled its proposal of a step-by-step approach, starting with the adoption, by the international community, of the principle of non-interference with non-agressive space activities, which should form the basis of a régime of confidence-building measures. In a working paper (CD/1092 - CD/OS/WP.46) and in an expert presentation, it developed its proposal for the reinforcement of the 1975 Registration Convention, for rules of conduct for space objects, for measures of transparency and for an International Trajectory Centre. It also introduced a proposal for regional transparency agencies, providing for access to satellite imagery in the framework of regional agreements on confidence- and security-building measures.

56. The delegation of another Western State, in an expert presentation (contained in Document CD/WP/OS.48), also focussed on the confidence- and security-building aspects to be included in the provisions of a Protection régime for outer space. It considered that transparency and restraint in space activities should be promoted by a code of conduct supplemented by registration and notification measures linked to rules of the road for in-orbit space objects for better monitoring as well as to keep-out zones. Proposals for strengthening the requirements of registration and notification could be enhanced by pre-launch inspection of space objects. According to the expert, unlike weapon-related agreements, a Protection régime for outer space would allow a more general assessment of capabilities, with provisions which would differ considerably in terms of stringency and intrusiveness of monitoring. It would be possible to combine the three areas of declaratory, intentional and substantial confidence- and security-building measures.

57. Another Western delegation in an expert presentation briefed the Ad Hoc Committee on the possibilities of current and future space technologies for disarmament verification. The expert indicated that in order to achieve effective verification it could be advantageous to use a combination of mutually reinforcing methods in a staged approach. After a short survey of the present technical possibilities the expert spoke of the future of the verification-related space technology in Europe. In this respect he introduced the EUCLID Programme of the Independent European Programme Group (IEPG), and the Programme of the Western European Union (WEU). He stressed that a good cooperation among all the technical space, aerial and ground-based means could provide guarantees for the prevention of a new arms race.

58. An expert from another Western delegation addressed the problem of debris and military activities in space (CD/OS/WP.47, 2 August 1991) trying to assess the danger posed to artificial satellites by orbiting debris. He indicated that military activities in space constituted a large fraction of the total debris population and deployment and the testing of weapons in space would contribute to its further growth. To ensure safe space activity for all, including military operations, an international regime was called for. Some actions which could and should be taken about the debris problem were mentioned, including care about launch operations, keeping of the physical integrity of spacecraft, avoidance of deliberate fragmentation of spacecraft and rockets. It was underlined that plans for any space-based weapon system should be completely revised.

59. One expert from a delegation belonging to the Group of 21 addressed possibilities of monitoring testing of existing and potential ASAT weapons. A number of ways that satellites could be made inoperational were indicated. Among the future potential ASAT weapons mention was made of lasers, space mines, brilliant pebbles, high power microwaves, rail-guns, and neutral particle beams. It was said that during testing the characteristic parameters of weapons systems should show up. Among the various ways to monitor weapons and weapons testing photographic, heat detection, radar, electromagnetic fields detection, radiometric scattering, and probing techniques were discussed. Tagging was mentioned as one example of cooperative measures. With novel encryption techniques, very high degrees of security and authenticity could be obtained. Some of the non-dedicated ASAT weapons were said to be hypothetical in contrast to the monitoring techniques, which already had existed for some time in many cases, although an elaboration of these techniques in relation to a realization of the potential weapons concepts was claimed to be necessary.

IV. CONCLUSIONS

60. There continued to be general recognition in the Ad Hoc Committee of the importance and urgency of preventing an arms race in outer space and readiness to contribute to that common objective. The work of the Committee since its establishment in 1985 has contributed to the accomplishment of this task. The Committee held a wide ranging exchange of views and heard a number of expert presentations which contributed to identifying and clarifying a number of issues and to a clearer perception of the various positions. The Committee,

while aiming at identifying areas of convergence suitable for further structured work, advanced and further developed the examination and identification of various issues relevant to the prevention of an arms race in outer space. It was recognized once more that the legal régime applicable to outer space by itself did not guarantee the prevention of an arms race in outer space. There was again recognition of the significant role that the legal régime applicable to outer space played in the prevention of an arms race in that environment and of the need to consolidate and reinforce that régime and enhance its effectiveness and of the importance of strict compliance with existing agreements, both bilateral and multilateral. There was general recognition of the importance of the bilateral negotiations between the Union of Soviet Socialist Republics and the United States of America and it was stressed that bilateral and multilateral efforts were complementary. In the course of the deliberations, the common interest of mankind in the exploration and use of outer space for peaceful purposes was acknowledged. In this context, there was also recognition of the importance of paragraph 80 of the Final Document of the first special session devoted to disarmament, which stated that "in order to prevent an arms race in outer space, further measures should be taken and appropriate international negotiations held in accordance with the spirit of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and other Celestial Bodies". The Ad Hoc Committee continued its examination of existing proposals and gave a preliminary consideration to a number of new proposals and initiatives aimed at preventing an arms race in outer space and ensuring that its exploration and use will be carried out exclusively for peaceful purposes in the common interest and for the benefit of all mankind.

61. In the context of their contribution to the discussions on all aspects of the mandate and work programme, the importance of the presentations in the Committee relating to confidence-building measures and to greater transparency and openness in space made in the course of the 1991 session was recognized by the Committee. Although cognizant of the various positions on these matters the Committee also recognized the relevance of that discussion to the work of the Committee. The Committee also noted the valuable and significant contribution to this discussion of the experts from many delegations and expressed its appreciation to those delegations that provided those contributions. The Committee equally expressed its appreciation of the preliminary work done by the Friends of the Chairman, viewing the outcome of

their exercise as an encouraging development in the process of building upon the areas of convergence. The Committee recommended that this exercise be continued in 1992.

62. It was agreed that substantive work on this agenda item should continue at the next session of the Conference. It was recommended that the Conference on Disarmament re-establish the Ad Hoc Committee on the Prevention of an Arms Race in Outer Space with an adequate mandate at the beginning of the 1992 session, taking into account all relevant factors, including the work of the Committee since 1985.

A N N E X

The present Annex contains the lists of topics that were presented by the Chairman corresponding to each one of the three items of the Committee's Programme of Work. The lists were elaborated to enable the Committee to structure its deliberations in an orderly and systematic manner. They do not represent in this sense an agreed or exhaustive listing nor do they reflect an order of priority among the items. The lists of topics reflect the questions on which the Committee has been working thus far and that could constitute a guide for future deliberations.

LIST OF TOPICS FOR DISCUSSION UNDER ITEM 1 OF THE PROGRAMME OF WORK: EXAMINATION AND IDENTIFICATION OF ISSUES RELEVANT TO THE PREVENTION OF AN ARMS RACE IN OUTER SPACE

I. The Prevention of an Arms Race in Outer Space as a matter of priority in the international agenda.

1. Determination of the scope and objectives of multilateral work under the agenda item.
2. The status of Outer Space:
   - as the common heritage of mankind which should be used exclusively for peaceful purposes;
   - as the province ("apanage") of mankind.
3. The identification of the functions performed by space objects and of threats confronting them.
4. The need for identification and elaboration of mutually-agreed legal terms:
   - possible elaboration of a glossary of relevant definitions
   - discussion or possible updating of Canadian working paper CD/716 on "Terminology Relevant to Arms Control and Outer Space"
   - additional sources: UNIDIR's report on Problems Related to Outer Space (1987)
   - other sources.
5. Examination of sufficiency and adequacy of the existing legal regime.
6. Approaches to reach a common understanding of what the existing legal norms do with regard to outer space activities:
   - recognition of limitations of the existing regime.
7. Functioning of the existing legal instruments:
   - encouragement for wider participation and fuller compliance as generally acceptable means for strengthening of the regime.

II. Relationship between space activities, security and stability.

1. The absence at present of weapons in space.

- acknowledgement of non deployment, at present, of weapons in outer space
- existence of ground-based weapons aimed at space located targets
- testing of air-based weapons aimed at space located targets
- space-based weapons at research stage.

2. The relationship between the Prevention of an Arms Race in Outer Space and Arms Limitation and Disarmament Measures in other areas.

- interrelation between measures related to Outer Space and other aspects of the disarmament and arms limitation domain.

3. Vulnerability and immunity of satellites, their role and use for purposes of reliable verification.

4. Different concepts relating to International Verification Systems:

- comprehensive, combined
- treaty specific
- National technical means additioned by other methods suitable for multilateral agreements
- analysis of technologies available.

5. Questions relating to compliance.

6. The need for information on how outer space is being used:

- confidence building and predictability synthetic approach

7. National Space programmes of military significance.

III. New trends and dimensions of the Arms Race and its possible impact on the prevention of an Arms Race in Outer Space

1. Impact of science and technology in the prevention of an arms race in outer space.

IV. Importance and scope of the bilateral negotiations between the Union of Soviet Socialist Republics and the United States of America

1. Harmonization of work at the bilateral and multilateral levels.

2. Role of the Conference on Disarmament.

LIST OF TOPICS FOR DISCUSSION UNDER ITEM 2 OF THE PROGRAMME OF WORK: EXISTING AGREEMENTS RELEVANT TO THE PREVENTION OF AN ARMS RACE IN OUTER SPACE

I. General consideration on the legal regime applicable to Outer Space relevant to the prevention of an Arms Race in this field

1. Peaceful Uses

2. Non-aggressive uses

3. Military uses.

4. Alternative approaches. The concept of Non Interference with Non Aggressive Activities of Space Objects.

II. Sources

1. Customary Law

2. The Charter

- Preamble.
- Art. 1 (1)
- Art. 2 (2) and (4)
- Art. 51

III. The Outer Space Treaty of 1967

1. Article IV

- scope of the prohibition
- possibility to ban activities or weapons not included in the prohibition set forth by Art. IV through the development of the concept of Non Interference with Non Aggressive Activities of Space Objects.

2. The question of the principle of exclusive use for peaceful purposes as reflected in the Treaty.

3. Perceived lacunae.

4. The question of the existence of a "double" regime applicable to Outer Space.

IV. Adequacy/Inadequacy-Sufficiency/Insufficiency

1. Limitations and loopholes.

2. consolidation, reinforcement, development:

- by direct amendments
- through an indirect approach (CBMS)

3. participation

V. The role of the Bilateral Agreements

1. The ABM treaty.

VI. The Strategic Defenses

1. Their impact on the problem under consideration:

- protection against ballistic missile attacks.

LIST OF TOPICS FOR DISCUSSION UNDER ITEM 3 OF THE PROGRAMME OF WORK: EXISTING PROPOSALS AND FUTURE INITIATIVES ON THE PREVENTION OF AN ARMS RACE IN OUTER SPACE

I. The Outer Space Treaty

1. Existing restrictions and scope of the instrument.

2. Amendment proposals:

2.A. Analysis of the consistency of Art. IV under the perspective of the regime applicable to Outer Space as distinct from the one confined to the Moon and Other Celestial Bodies. Consequential amendment

2.B. Extension of the present prohibition to all kinds of weapon systems (CD/851).

2.C. Enlargement of the prohibition spelt out in art. IV to make it applicable to any kind of weapon systems (CD/939).

II. Anti-Satellite Weapon Systems (ASATs)

1. Banning of all ASAT weapons.

2. The question of banning dedicated ASAT weapons/specialized ASAT systems.

3. Banning of ASAT-mode testing of other weapon devices.

4. Gradual approach: 1. first use limitations; 2. rules of the road leading to a Comprehensive Ban on Satellite Intercept Capability.

5. Conclusion of an Additional Protocol for the purpose of prohibiting the development, production, storage and deployment of anti-satellite weapons not stationed in Outer Space.

III. Confidence-Building Measures

1. Synthetic Approach. Confidence Building and Predictability Measures in Outer Space.

2. Improvement of Data Bases.

3. The Registration Convention:

1. strengthening of its regime

1.A additional protocol

1.B. refinement of information to be supplied as provided for in art. IV of the Convention

1.C. possible additional criteria

- pre-launch information
- announcement of parameters
- updating
- other.

2. Voluntary Data Exchanges

2.A Declaration of Non Deployment of Weapons in Outer Space

3. Rules of the Road Concept

3.A restrictions on very low altitude overflights by manned and unmanned spacecraft

3.B advanced notice of launch activities

3.C specific rules for agreed and possible defended "keep out" zones

3.D grant or restrictions of the right of inspections

3.E limitations to high velocity fly-bys

3.F limitations on trailing

3.G consultation on ambiguous situations

4. Code of Conduct Concept:

4.A Codification of the principle of non-interference with non-offensive space activities

4.B International Trajectography Centre - UNITRACE

5. Data Base

5.A Establishment of a Data Base on the launching of satellites and the collection and classification of technical data

6. Combined Approaches

6.A The "Open Outer Space" concept

IV. The Role of the New Technologies

1. Non Nuclear Defences against strategic ballistic missiles

2. Phased program for co-operative transition to increasing reliance on such defences

3. Predictability Measures.

V. Verification

1. General:

1.A interrelationship between verification in space and on earth's surface related to space

1.B definitional questions (identification of space activities which have inherent arms applications)

1.C practical difficulties including resources and funding

1.D the need to evolve from the almost exclusive use of National Technical Means of Verification to other methods involving multilateral agreements

2. Second Additional Protocol on Verification. Ref. CD/939.

3. Verification of Space activities. The question of confidentiality. Disclosure of information.

4. Utilization of commercial space based remote sensing imagery.

5. Agency for Processing of Space Images.

6. Protection (immunity) of satellites serving as National Technical Means of Verification.

7. Technologies available:

7.A microwave radar imaging

7.B satellite-borne sensors

7.C infra-red devices

7.D tagging of satellites

7.E other.

CONFERENCE ON DISARMAMENT

CD/1125
14 February 1992

Original: ENGLISH

Mandate for an Ad Hoc Committee under item 5 of the agenda of the Conference on Disarmament entitled "Prevention of an Arms Race in Outer Space"

(Adopted at the 612th plenary meeting on 13 February 1992)

In the exercise of its responsibilities as the multilateral disarmament negotiating forum in accordance with paragraph 120 of the Final Document of the first special session of the General Assembly devoted to disarmament, the Conference on Disarmament decides to re-establish an Ad Hoc Committee under item 5 of its agenda entitled "Prevention of an Arms Race in Outer Space".

The Conference requests the Ad Hoc Committee, in discharging that responsibility, to continue to examine, and to identify, through substantive and general consideration, issues relevant to the prevention of an arms race in outer space.

The Ad Hoc Committee, in carrying out this work, will take into account all existing agreements, existing proposals and future initiatives as well as developments which have taken place since the establishment of the Ad Hoc Committee, in 1985, and report on the progress of its work to the Conference on Disarmament before the end of its 1992 session.

GE.92-60304/8622a

CONFERENCE ON DISARMAMENT

CD/1165
12 August 1992

Original: ENGLISH

REPORT OF THE AD HOC COMMITTEE ON PREVENTION OF AN ARMS RACE IN OUTER SPACE

I. INTRODUCTION

1. At its 612th plenary meeting on 13 February 1992, the Conference on Disarmament adopted the following decision (CD/1125):

> In the exercise of its responsibilities as the multilateral disarmament negotiating forum in accordance with paragraph 120 of the Final Document of the first special session of the General Assembly devoted to disarmament, the Conference on Disarmament decides to re-establish an Ad Hoc Committee under item 5 of its agenda entitled "Prevention of an Arms Race in Outer Space".
>
> The Conference requests the Ad Hoc Committee, in discharging that responsibility, to continue to examine, and to identify, through substantive and general consideration, issues relevant to the prevention of an arms race in outer space.
>
> The Ad Hoc Committee, in carrying out this work, will take into account all existing agreements, existing proposals and future initiatives as well as developments which have taken place since the establishment of the Ad Hoc Committee, in 1985, and report on the progress of its work to the Conference on Disarmament before the end of its 1992 session.

2. In that connection, some delegations made statements regarding the scope of the mandate.

II. ORGANIZATION OF WORK AND DOCUMENTS

3. At its 613th plenary meeting on 20th February 1992, the Conference on Disarmament appointed Ambassador Romulus Neagu of Romania as Chairman of the Ad Hoc Committee. Mr. Vladimir Bogomolov, Political Affairs Officer, United Nations Office for Disarmament Affairs served as the Committee's Secretary.

GE.92-62596

4. The Ad Hoc Committee held 13 meetings between 10th March and 11 August 1992.

5. In addition to the documents of the previous sessions [1/] the Ad Hoc Committee had before it the following documents relating to the agenda item submitted to the Conference on Disarmament during the 1992 session:

CD/1142 Letter dated 11 March 1992 from the Permanent Representative of Canada addressed to the Secretary-General of the Conference on Disarmament transmitting Compendia on Outer Space comprising Plenary Statements and Working Papers from 1991 Session of the Conference on Disarmament.

CD/OS/WP.52 Programme of Work

CD/OS/WP.53 Letter dated 15 May 1992 from the Friend of the Chairman of the Ad Hoc Committee on the Prevention of an Arms Race in Outer Space addressed to the Chairman of the Ad Hoc Committee on the Prevention of an Arms Race in Outer Space, forwarding the Working Paper "Table of Statements and Proposals by the members of the Conference on Disarmament relating to Confidence-Building Measures (CBMs) in Outer Space Activities".

CD/OS/WP.54 Working Paper entitled "Confidence-Building Measures in Space Activities", submitted by the Friend of the Chair, Col. G. Diachenko of the Delegation of the Russian Federation.

CD/OS/WP.55 Working Paper entitled "Nuclear Power Systems in Space", submitted by Mr Luciano Anselmo, Expert of the Delegation of Italy.

CD/OS/WP.56 Working Paper entitled "Remarks on keep-out zones in a code of conduct regime for outer space", submitted by Dr Hubert Feigl, Expert of the Delegation of Germany.

III. SUBSTANTIVE WORK DURING THE 1992 SESSION

6. Following consultations on the organization of work, at its first meeting on 10th March 1992, the Ad Hoc Committee adopted the following Programme of Work for the 1992 Session:

"1. Examination and identification of issues relevant to the prevention of an arms race in outer space;

1/ The List of Documents of the previous Sessions may be found in the 1985, 1986, 1987, 1988, 1989, 1990 and 1991 Reports of the Ad Hoc Committee, and in the special report to the Third Special Session of the General Assembly devoted to Disarmament (CD/642, CD/732, CD/787, CD/870, CD/834, CD/956, CD/1039 and CD/1111, respectively).

"2. Existing agreements relevant to the prevention of an arms race in outer space;

"3. Existing proposals and future initiatives on the prevention of an arms race in outer space;

"In carrying out its work with a view to finding and building upon areas of convergence, the Ad Hoc Committee will take into account relevant proposals, initiatives and developments since the establishment of the Committee in 1985 including those presented at the 1991 session of the Conference on Disarmament aimed at enhancing the work of the Ad Hoc Committee as reflected in the work of the Friends of the Chairman, who dealt with the following specific issues in open-ended consultations: Terminological Aspects related to the prevention of an arms race in outer space, issues related to Verification of ASATs and Confidence Building Measures, including improvement of existing and future data bases relating to space activities."

7. With regard to the organization of work, the Ad Hoc Committee agreed that it would give equal treatment to the subjects covered by its mandate and specified in its Programme of Work. Accordingly, the Committee agreed to allocate the same number of meetings to each of those subjects. It was noted that any member wishing to do so may discuss any subject important and relevant to the work of the Committee.

8. The work of the Ad Hoc Committee was governed by the mandate which aims at the Prevention of an Arms Race in Outer Space.

9. The Ad Hoc Committee agreed to continue to enjoy the assistance of the Friends of the Chairman who were appointed by the Chairman to deal with the following issues without prejudice to positions of delegations in open-ended consultations: a) terminological aspects, related to prevention of an arms race in outer space (The Hon. Anthony Monckton, Delegation of the United Kingdom of Great Britain and Northern Ireland); b) issues related to verification of ASATs (antisatellite weapons) (Dr. M. Karem, Delegation of Egypt); c) confidence-building measures in space activities (Col. G. Diachenko, Delegation of the Russian Federation).

10. The Committee benefitted from the scientific and technical contributions of experts from various delegations, who addressed specific issues and initiatives under consideration in the Committee. The subjects addressed

included technical, legal and terminological issues, i.e. peaceful and military uses, protection of satellites, keep-out zones, radioactive materials in outer space and principles governing the re-entry of nuclear power sources in the atmosphere, a need to build a set of principles of CBMs.

A. Examination and identification of issues relevant to the prevention of an arms race in outer space

11. Many delegations considered that, in the post Cold-war period, preventing an arms race in outer space was one of the principal tasks facing the Conference on Disarmament. In this age of high technology and qualitative increases in weapons precision, outer space stood out as an environment vulnerable to militarization. Some delegations stressed that action by the Conference on Disarmament in preventing an arms race in outer space was not only timely, but essential for ensuring that the province of all mankind was indeed explored and used exclusively for peaceful purposes. For those delegations weaponization of outer space was a potential hazard to the space activities of mankind and the peaceful use of outer space. In their view it would be too late to set about drafting a treaty on the prohibition of the weaponization of outer space once such weaponization became a fait accompli.

12. Many delegations expressed their regret that the mandate of the Committee remained the same, and that no substantive change had been added to its programme of work. Some delegations pointed out that the ad hoc Committee should as early as possible conduct substantive negotiations on the conclusion of a comprehensive legal instrument on the prevention of an arms race in outer space.

13. The Group of 21 considered that there was an urgent need to address this important agenda item so as to achieve progress. For this reason, the Group took a flexible position on the question of the mandate and the programme of work although it would have preferred the Committee to work under a negotiating mandate, which would help to concentrate the efforts of the Committee on concrete proposals.

14. In the view of several delegations the most promising directions of work of the Committee appeared to be in the area of CBMs: the development of a code of conduct/rules of the road, the establishment of "keep-out zones", the legal protection of satellites, an agreement on their immunity, the creation of an international trajectography centre, and of a satellite image processing agency.

15. One delegation of the Western Group addressing the subject of space debris indicated that various misconceptions about them had caused some to conclude that an international legal regime on space debris would be needed. In the view of this delegation for such a regime to be established, several legal issues, including the definition of space debris, jurisdiction and control over space debris, and the treatment of liability for damage from orbital debris would be only some of the many legal issues that would need to be resolved. Another delegation of the Western Group presented an expert who gave his own views on the legal background to some terminological issues. The expert referred to other international treaties and concluded that in his view, even though in some contexts "peaceful" meant "non-military", any ambiguity had been clarified by State practice which had not been contradicted in a forceful manner by any state formally protesting military utilisation of space. The expert believed that current military uses of space such as communications, navigation, photo reconnaissance, early warning and weather monitoring all appeared to be lawful.

16. Some delegations referred to the issue of the "Global Protection Against Limited Strikes" (GPALS). One delegation not belonging to any group indicated that although the world had undergone major changes, the research and development of space weapons had not come to an end. The new anti-ballistic missile system was not totally defensive in nature and also had an attacking capability. In its view the development of such a system would inevitably give rise to mutual suspicion among the states and contribute to more tensions in the world. It could also provoke countries with the ability to develop a ballistic missile system to speed up its development. In the opinion of that delegation the implementation of GPALS would surely violate the ABM Treaty, which would have to be either terminated or amended.

B. Existing agreements relevant to the prevention of an arms race in outer space

17. A majority of the members of the Committee pointed out that the legal regime applicable to outer space by itself did not guarantee the prevention of an arms race in outer space. There was a need to consolidate and reinforce that regime and enhance its effectiveness. Existing legal instruments were not satisfactory. Limited in scope, they were utterly inadequate in forestalling an arms race in outer space in that they contained no clear-out provisions on the prohibition of deployment of various types of space weapons,

except that of nuclear weapons and other weapons of mass-destruction. According to some delegations it was therefore necessary to conclude a legal instrument, acceptable to all states, on the de-weaponization of outer space, and on the prohibition of all types of space weaponry.

18. Some delegations of the Western Group maintained that the existing legal regime provided an equitable and balanced response to the need to promote peaceful uses and arms control in outer space.

19. One delegation of the Western Group stated that the legal regime governing outer space could be seen to be wide-ranging and logical. According to that delegation there were no contradictions in its framework, nor was the existing regime full of gaps and holes. It was effective, practical and, most of all, workable. It was not perfect, but its problems would be inherent in any legal regime for arms control in outer space. Any perceived gaps in the legal regime could be satisfied by particular attention to the principles now in existence. Other delegations of the same Group emphasized that what was really in question was compliance with the existing legal regime. They underlined that there were many nations that have not ratified or acceded to the existing international agreements pertaining to outer space and, for this reason, cooperative efforts could not be pursued on this subject in an effective manner.

20. Another delegation of the same group argued that the legal regime could be reinforced by improving state practice under existing conventions. For example, with respect to the Registration Convention, the United Nations Secretariat might devise some standard form of automatic despatch of notices to remind States of their obligations under the Convention. This would strengthen the role of the Secretary-General in the pursuit of greater transparency in outer space activities. The Conference on Disarmament might also recommend to the Security Council that it adopt a resolution both requesting the Secretary-General to send out automatic reminder notices, and setting up a committee of the Council to review periodically any failures of States to register their launches. The delegation suggested that more frequent use of Article IX of the Outer Space Treaty of 1967, might well serve as a consultative mechanism to expand the kind and amount of information to be provided under the Registration Convention. Article XI of the Outer Space Treaty could serve as a basis for requiring data beyond that which is currently routinely provided under the Registration Convention. It would also underline the more active role which the Secretary-General might play and indeed seemed already authorized to play in serving a data-collection function.

C. Existing proposals and future initiatives on the prevention of an arms race in outer space

21. The Group of 21 recalled its proposal for the ad-hoc Committee to have a negotiating mandate. The Group held the position that the Committee should focus on concrete proposals for measures with a view to conducting negotiations for the conclusion of an agreement or agreements, as appropriate, to prevent an arms race in outer space in all its aspects.

22. Some delegations reiterated that the Outer Space Treaty, in the first paragraph of Article IV, left a legal loophole exploited by some space powers to develop a new generation of weapons that could be placed in outer space. In this connection, one delegation recalled its proposal contained in document CD/851 to amend Article IV. It stressed that the proposal was aimed at filling in an important juridical vacuum in the Outer Space Treaty and to prevent the stationing in outer space of weapons other than nuclear and mass destruction weapons.

23. The question of the functioning of the Registration Convention and ways of strengthening the regime established by it, was again addressed by several delegations. Improvements could include the provision of more timely and specific information concerning the function of satellites, including whether the satellite was fulfilling a civilian or military mission.

24. In connection with the legal protection of satellites, some delegations indicated that both the questions of ASAT weapons and of immunity of space devices should be addressed in order to achieve an ASAT prohibition and to guarantee legal immunity for satellites performing definitive peaceful functions. One delegation of the Western Group recalled that it had not found any measure in the field of ASATs that would be verifiable or equitable. The inability to construct a suitable and effective verification system could prevent agreements from being finalized. On the subject of "keep-out zones", it had concluded that the physical characteristics of space and spacecraft motion, coupled with the sheer number of objects that would need to be tracked, would make it difficult, if not impossible, for most space nations to monitor compliance with "keep-out zones". In its view keep-out zones would not be practical for providing protection to satellites. Another delegation indicated that verification and monitoring of observance of such zones would be a delicate task and hence the usefulness of a trajectography tracking

centre. One delegation of the Western Group presented an expert's report on "Keep-Out Zones" as part of a Code of Conduct. "Keep-Out Zones" could play an essential role in a Protection regime which cared for the protection of a State's space activities through agreed and verifiable provisions. The concept of "Keep-Out Zones" in this understanding might be combined with declared or notified pre-launch information, thus contributing essentially to confidence-building measures.

25. A substantial part of the discussions was devoted to confidence-building measures and ensuring greater transparency in space activities. Many delegations were of the view that CBMs was one of the areas where some degree of certainty and convergence of views existed and could form part of a negotiating process with a view to reaching agreements. Several delegations favoured the approach centred on non-interference with non-agressive activities and CBMs which would support that objective.

26. One delegation emphasized that while the CBMs contributed to the positive development in international relations, the discussions on CBMs should not obstruct the creation of a substantive and legally binding treaty banning all space weapons. In its view some of the CBMs already on the table could be considered as verification measures for a future treaty, among them the establishment of an appropriate international supervisory body to inspect objects before they are launched into space.

* * *

27. The discussion of the Friend of the Chair for Terminological Issues centred on two non-papers prepared by him on the phrases "peaceful purposes" and "the militarisation of space". Some delegations of the Western Group thought that basic groundwork on terminology was essential if areas of consensus were to be found. The debate on "peaceful purposes" indicated that some delegations maintained that the concept meant "no military use of space", while other delegations believed it meant "non agressive use of space". One delegation of the Western Group considered that since no delegation questioned the illegality of any aggressive use of outer space, a common denominator existed on that notion. On "militarisation" there was agreement that further work was needed on the definition of a "space weapon". One delegation of the Western Group suggested that it would be useful to concentrate on what was

regarded as being "destabilizing" rather than on trying to define the "acceptable" uses of space.

28. The Friend of the Chair for verification of ASATs held open-ended consultations on the basis of the paper he had prepared (CD/OS/WP.50). In these consultations some delegations insisted that there was no legal instrument that governed activities of States with regard to this system and other delegations of the Western Group recalled that the existing legal regime placed a wide variety of legal restraints on the nature, deployment and use of ASATs. For those delegations the lack of a clear and broad enough definition of antisatellite weapons and their components was a serious obstacle to progress in the preparation of legal instruments. It was suggested that, in spite of their complexities, the problems of definition and verification could be dealt with by the Conference on Disarmament. The question of verification would eventually depend on the type of instrument that was being devised. It was also proposed to explore whether there existed or not, from a strategic or military point of view, any difficulties or any objections ad initio to the preparation of a legal instrument. Some delegations proposed to deal with the subject in a gradual progressive fashion and by confidence-building, transparency and trajectory control measures that would raise the financial and political costs of an aggressive use of Outer Space. One delegation of the Western Group also indicated that ASATs could not be dealt with without having as a legal basis or background an agreement on the concept of aggression. It was the view of the Friend of the Chair that the joint participation of several experts from interested delegations could help to facilitate a better understanding of the problems under consideration and identification of promising areas. One delegation presented a Non-Paper entitled "ASATs: Realities and Prospects".

29. The Friend of the Chair for confidence-building measures in space activities conducted consultations with the interested parties. As the outcome of those consultations, as well as on the basis of the statements and documents previously submitted to the Committee, he drafted an analytical non-paper where he identified five possible areas for the development of CBMs in outer space: a) Strengthening of the 1975 Convention on Registration of Objects Launched into Outer Space: b) Use of satellite monitoring in the interests of the international community; c) Drawing up of "rules of the

road"/a "code of conduct"; d) Inspections of space objects at launching sites; e) Establishment of an international trajectography centre. As a result of further consultations and at the recommendation of several delegations, these areas were grouped under three main headings: a) Measures to promote transparency, openness and predictability; b) Rules for the behaviour of space objects ("Rules of the road"/a "code of conduct" for outer space); c) "Institutional" measures (the establishment of various types of body for the implementation of confidence-building measures: world space organization, international satellite monitoring agency, satellite image processing agency, international space monitoring agency, inspectorate and trajectography centre). The Friend of the Chairman stated that there was wide agreement on the extension of the volume and nature of the information supplied by States on space objects and, perhaps, on a few of the simplest notification measures discussed in the context of "rules of conduct" in outer space. Hence, a study of those topics with the help of technical and scientific experts, would be a promising way of promoting broad consensus.

IV. CONCLUSIONS

30. There continued to be general recognition in the Ad Hoc Committee of the importance and urgency of preventing an arms race in outer space and readiness to contribute to that common objective. The work of the Committee since its establishment in 1985 has contributed to the accomplishment of this task. The debates and the presentations made by experts at this annual session contributed to further identifying and clarifying a number of issues relevant to the prevention of an arms race in outer space. The Committee has also advanced in its efforts to identify areas of convergence suitable for a more structured work. It was recognized once more that the legal régime applicable to outer space by itself did not guarantee the prevention of an arms race in outer space. There was again recognition of the significant role that the legal régime applicable to outer space played in the prevention of an arms race in that environment and of the need to consolidate and reinforce that régime and enhance its effectiveness and of the importance of strict compliance with existing agreements, both bilateral and multilateral. In the course of the deliberations, the common interest of mankind in the exploration and use of outer space for peaceful purposes was acknowledged. In this

context, there was also recognition of the importance of paragraph 80 of the Final Document of the first special session devoted to disarmament, which stated that "in order to prevent an arms race in outer space, further measures should be taken and appropriate international negotiations held in accordance with the spirit of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and other Celestial Bodies". The Ad Hoc Committee continued its examination of existing and some new proposals aimed at preventing an arms race in outer space and ensuring that its exploration and use will be carried out exclusively for peaceful purposes in the common interest and for the benefit of all mankind.

31. In the context of their contribution to the discussions on all aspects of the mandate and work programme, the importance of the presentations in the Committee relating to confidence-building measures and to greater transparency and openness in space made in the course of the 1992 session was recognized by the Committee. Although cognizant of the various positions on these matters the Committee also recognized the relevance of that discussion to the work of the Committee.

32. The Committee noted the valuable and significant contribution to the discussions of the experts from several delegations and expressed its appreciation to those delegations that provided those contributions. The Committee equally voiced its appreciation of the preliminary work continued by the Friends of the Chairman and their organization of open-ended consultations on such important issues as those related to ASATs, CBMs and terminological aspects of the prevention of an arms race. It viewed the outcome of their efforts as an encouraging development in the process of building upon the areas of convergence. The Ad Hoc Committee recommended to continue such exercises in 1993.

33. It was agreed that substantive work on this agenda item should continue at the next session of the Conference. It was recommended that the Conference on Disarmament re-establish the Ad Hoc Committee on the Prevention of an Arms Race in Outer Space with an adequate mandate at the beginning of the 1993 session, taking into account all relevant factors, including the work of the Committee since 1985.

CONFERENCE ON DISARMAMENT

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REPORT OF THE AD HOC COMMITTEE ON PREVENTION OF AN ARMS RACE IN OUTER SPACE

I. INTRODUCTION

1. At its 637th plenary meeting on 21 January 1993, the Conference on Disarmament established an Ad Hoc Committee on the item "Prevention of an Arms Race in Outer Space" with the mandate contained in document CD/1125 of 14 February 1992.

II. ORGANIZATION OF WORK AND DOCUMENTS

2. At its 639th plenary meeting on 28 January 1993, the Conference on Disarmament appointed Ambassador Wolfgang Hoffmann of Germany as Chairman of the Ad Hoc Committee. Mr Vladimir Bogomolov, Political Affairs Officer, United Nations Office for Disarmament Affairs, served as the Committee's Secretary.

3. The Ad Hoc Committee held 17 meetings between 16 February and 18 August 1993.

4. In addition to the documents of the previous sessions[1/] the Ad Hoc Committee had before it the following documents relating to the agenda item submitted to the Conference on Disarmament during the 1993 session:

1/ The List of Documents of the previous Sessions may be found in the 1985, 1986, 1987, 1988, 1989, 1990, 1991 and 1992 Reports of the Ad Hoc Committee (CD/642, CD/732, CD/787, CD/870, CD/956, CD/1039, CD/1111 and CD/1165 respectively), and in the special report to the Third Special Session of the General Assembly devoted to Disarmament (CD/834).

CD/OS/WP.57	1993 Programme of Work
CD/OS/WP.58 and Corr.1	Working paper entitled "Confidence-building Measures in Outer Space" submitted by Colonel Georgui Diachenko, Friend of the Chairman of the Ad Hoc Committee on the Prevention of an Arms Race in Outer Space
CD/OS/WP.59	Working Paper entitled "Confidence-building Measures in Outer Space, Notification of Launches of Space Objects and Ballistic Missiles" submitted by France
CD/OS/WP.60[2/]	Chairman's Paper: Review of the work of the Ad Hoc Committee on the Prevention of an Arms Race in Outer Space on issues relating to confidence-building measures in outer-space activities
CD/OS/WP.61	Working paper entitled "Some thoughts on the design of Confidence-Building Measures in space activities" submitted by Colonel Yuri Novosadov, Friend of the Chairman
CD/OS/WP.62	Working paper entitled "Low-intrusiveness Measures for Monitoring a Protection Regime in Outer Space" submitted by Dr. Hubert Feigl, Expert of the Delegation of Germany
CD/OS/WP.63	Working paper entitled "The Regulation of Nuclear Power Systems in Near-Earth Space as Confidence-Building Measures aimed at strengthening international security" submitted by Bruno Bertotti, Dipartimento di Fisica Nucleare Teorica - Università di Pavia in collaboration with Luciano Anselmo, Centro Nazionale Universitario Calcolo Elettronico, Pisa and Paolo Farinella, Dipartimento di Matematica, Università di Pisa, Italy
CD/OS/WP.64	Working paper entitled "Terminological Groundwork for Confidence-Building Measures in Outer Space" submitted by Rafael M. Grossi, Friend of the Chairman
CD/OS/WP.65	Chairman's Suggestions for the Future Work of the Committee
CD/OS/WP.66	Summary of Experts' Presentations to the Ad Hoc Committee
CD/OS/WP.67	France - Working Paper - Ballistic Missiles, Space Objects and Launchers. Definitions

III. SUBSTANTIVE WORK DURING THE 1993 SESSION

5. Following consultations on the organization of work at its first meeting on 16 February 1993, the Ad Hoc Committee adopted the following Programme of Work for the 1993 Session:

2/ CD/OS/WP.60* - reissued in English only

"1. Examination and identification of issues relevant to the prevention of an arms race in outer space.

2. Existing agreements relevant to the prevention of an arms race in outer space.

3. Existing proposals and future initiatives on the prevention of an arms race in outer space.

In carrying out its work with a view to finding and building upon areas of convergence, the Ad Hoc Committee will take into account relevant proposals, initiatives and developments since the establishment of the Committee in 1985 including those presented at the 1992 session of the Conference on Disarmament.

The practice of appointing Friends of the Chairman to organize open-ended consultations on issues of specific interest to the Committee should continue."

6. The Ad Hoc Committee agreed that it would give equal treatment to the subjects covered by its mandate and specified in its Programme of Work. Accordingly, the Committee agreed to allocate the same number of meetings to each of those subjects, while any member wishing to do so may discuss any subject important and relevant to the work of the Committee.

7. The work of the Ad Hoc Committee was governed by the mandate which aims at the Prevention of an Arms Race in Outer Space.

8. During the meetings of the Ad Hoc Committee, various Groups and individual delegations reaffirmed or further elaborated their respective positions, the detailed descriptions of which can be found in the previous annual reports of the Committee, related Conference documents and Working Papers, and Plenary Records.

9. The Ad Hoc Committee once again benefitted from the scientific and technical contributions of experts from various delegations, who addressed the following specific issues and initiatives under consideration in the Committee: Professor B. Bertotti (Italy) "The Regulation of Nuclear Power Systems in Near-Earth Space"; Dr H. Feigl (Germany) "Low-intrusiveness Measures for Monitoring a Protection Regime in Outer Space"; Dr U. Ekblad (Sweden) "Confidence-Building Measures as Means for Enhancing Space Security"; Mr H. Baccini (France) "French Procedures used for the National and International Notification of Launches of the European Launcher Ariane IV"; Major K. Story (United States of America) "Close Encounters in Space, the Keep-Out Zone Problem"; and Professor Dr M. Abdel-Hady (Egypt) "Verification Using Satellites as Confidence-Building Measure in Disarmament Affairs". The content of those presentations is contained in document CD/OS/WP.66 dated

13 August 1993. A representative of UNIDIR briefed the Committee on the activities of the Institute in this field.

10. The Ad Hoc Committee continued to enjoy the assistance of the Friends of the Chairman who were appointed by the Chairman to deal with the following issues without prejudice to positions of delegations in open-ended consultations:

(i) confidence-building measures in outer space (Colonel G. Diachenko, Delegation of the Russian Federation, subsequently succeeded by Colonel Y. Novosadov and Colonel V. Sukharev);

(ii) terminology and other relevant legal aspects related to prevention of an arms race in outer space (Mr R. Grossi, Delegation of Argentina).

Summary of the efforts of the Friends of the Chairman

(a) The respective Friends of the Chairman (Russian Federation) analysed all relevant numerous proposals related to the elaboration of confidence-building measures in outer space activities submitted over the years by the members of the Ad Hoc Committee and presented their assessment in documents CD/OS/WP.58 of 12 March 1993 and Corr.1 of 22 June 1993, and CD/OS/WP.61 of 26 May 1993. These proposals covered primarily the issues of the transparency of outer space activities (provision by States of more detailed information concerning planned and actual activities in outer space), the issues of elaborating a "code of conduct" and "rules of the road" in outer space, the issues of verification, as well as issues concerning the establishment of different international organizations that would favour the actual implementation of confidence-building measures. Based on the substance of the two above-mentioned documents prepared by the Friends of the Chairman and from the consultations held, it appeared that the majority of the members of the Ad Hoc Committee supported, one way or another, the idea of using confidence-building measures as a first step towards finding an encompassing solution to the problem of preventing an arms race in outer space. Such an approach, being a phased one by its nature, would initially allow the creation of an entire system of measures removing suspicion from outer space activities conducted by States and, in the long term, focussing further efforts of the Ad Hoc Committee to find efficient means of preventing an arms race in outer space. The Friends of the Chairman were of the view that it would be appropriate to widen and change the existing mandate.

(b) The Friend of the Chairman (Argentina), proposed to the Committee a different course of action from that followed in previous exercises of the

Committee in the area of terminological and other relevant legal aspects. The methodology proposed consisted in leaving aside fundamental problems of the space debate, like the question of peaceful/non-peaceful uses of outer space or the discussion of the scope of terms like militarization in a space context, on the assumption that these had been widely discussed by analysts in different fora and academic circles for a number of years without success. The Friend of the Chairman suggested establishing a link between the terminological exercise with the area of proposals and initiatives, the latter being the one that clearly embodies the future concrete activities of the Committee. Delegations thus agreed to initially concentrate their work on terminological and other relevant legal aspects directly related to existing proposals on confidence-building measures. The Friend of the Chairman prepared, under his own responsibility, a Working Paper (CD/OS/WP.64), intended to provide a basis for the consultations that were held. That document suggested as objectives for the terminological work the following: to provide additional clarification on the scope and objectives of existing proposals; to reduce possible redundancies and overlaps which might exist between different proposals; and to assist the Ad Hoc Committee in its assessment of the political acceptability and/or technical feasibility of proposals. In keeping with these guidelines, the document of the Friend of the Chairman drew attention to an indicative list of terms drawn from existing proposals in the area of confidence-building measures, and provided cross references to existing legal instruments already including definitions of those terms. Delegations, having made specific proposals, also provided additional references as well as their own definitions for selected terms. Finally, some delegations pointed out the importance of also addressing definitions related to space weapons. In this connection they recalled proposals and Working Papers introduced in previous sessions of the Ad Hoc Committee.

11. The delegation of France introduced a proposal for the prior notification of launches of space objects and ballistic missiles (CD/OS/WP.59). It recalled that, in its view, the goal of preventing an arms race in outer space could be gradually attained through a set of measures designed to ensure the security of space activities, to establish the illegal character of aggressive uses of outer space, and to increase confidence and transparency in space activities. Moreover, it considered that, since most space technologies could be used to produce ballistic missiles able to deliver weapons of mass

destruction, there was a need to ensure, through increased transparency, that space technologies were not diverted to non-peaceful uses. France, considering that the 1975 Registration Convention was insufficient, proposed that the Conference on Disarmament negotiate a new international instrument providing for the prior notification of launches of space objects and ballistic missiles and the establishment, under the auspices of the United Nations, of an international notification centre tasked with the collection and the dissemination of the data notified by the launching States. A number of delegations supported this initiative, considering that it could offer a realistic solution to the present deadlock in the Ad Hoc Committee due to the demands for more far-reaching negotiations on the one hand, and the need for further discussions on the other.

12. The Group of 21 noted that the growing convergence of views on the elaboration of measures designed to strengthen transparency, confidence and security, could facilitate negotiations as envisaged in the mandate of the Committee. The Group maintained that the prevention of an arms race in outer space would pave the way for the exploration and peaceful uses of outer space solely for the common interest and benefit of mankind and that States with advanced space technology and capabilities had special responsibilities for the discontinuance of all weapon-related activities adversely affecting the peaceful uses of outer space. It felt that, among the concrete proposals made on confidence-building measures, many were ripe for implementation, and some elements of these could form integral parts of a multilaterally negotiated agreement on the prevention of an arms race in outer space. In this regard, whilst appreciating the work carried out so far by the Friends of the Chairman on CBMs, the Group reiterated that, because of their supplementary and interim nature, CBMs were not an end in themselves. Their treatment in this Ad Hoc Committee should in no way detract, retard, or negatively affect, the attainment of its primary objective, namely, the conclusion of an international agreement, or agreements, on the prevention of an arms race in outer space, with a view to reinforcing the existing legal régime. Such an agreement, or agreements, should themselves include, and be the very cornerstone, of CBMs. The Group of 21 took note of, and shared the view of the Chairman of the Ad Hoc Committee, on the need to widen and enrich the present mandate with a negotiating character. In this regard, it encouraged the Chairman to pursue his consultations with a view to formulating a new mandate acceptable to all. The Group also reaffirmed its willingness to work

towards filling in the gaps that existed in the present outer space legal régime and reiterated that the conclusion of a multilaterally negotiated agreement, or agreements, for the elimination of the danger to international peace and security of an arms race in outer space should remain the most important area of responsibility of the Conference on Disarmament.

13. The delegation of Argentina referred to the area of confidence-building measures as one of the cornerstones of space stability and security. It considered CBMs in outer space as an appropriate example of a preventive measure in the space field. In the view of this delegation, the use of this type of measure in space, if applied with the same zeal and scope as in the case of the European continent, could be essential to avoid an arms race in space. An updated mandate for the Committee should, in its opinion, start with the consideration of CBMs.

14. The delegation of China also emphasized that while CBMs contributed to the positive development in international relations, their role was limited for the objective of this Committee. CBMs, on their own, could not eliminate the danger of weaponization in outer space. Therefore, the discussions on CBMs should not obstruct or delay indefinitely the process of formulating an effective legal instrument banning all space weapons and preventing an arms race in outer space.

15. The delegation of China pointed out that the notification of launches of ballistic missiles was not directly related to the work of this Committee. Ballistic missiles were not space objects, and their trajectory was mostly in atmosphere and thin atmosphere. Therefore, it was not possible for them to cause collision of space objects. The issue of notification of launches of ballistic missiles exceeded the Committee's mandate and should not be dealt with by it. Consequently, the term "ballistic missile" should not necessarily be included in the discussions on terminology in the Committee. Some other delegations expressed the opposite view.

16. The delegation of India had consistently put forward the idea of a ban on testing, development and deployment of all anti-satellite weapons. The existing legal régime already posed a wide variety of legal restraints on the nature, development and the use of ASATs. Therefore, the delegation of India had subscribed to the "narrow" interpretation of the ABM Treaty that it prohibited the development, testing and deployment of sea-based, air-based, space-based and land-based ABM systems and components without regard to the technology utilised. Since satellite technology generated enormous

opportunities in the field of economic growth and international security, it was imperative that the increasing positive developments of satellite technology should be safeguarded on an urgent basis. The Committee could approach the inadequacies of the existing international régime through its progressive development to address contemporary realities and the need to prevent an arms race in outer space. Such development should not, however, conflict with other aspects of international law on outer space. Confidence-building measures should be transparent and should not impede civilian national space programmes or international cooperation in space for peaceful purposes. CBMs were not a substitute for disarmament, though India acknowledged the contribution of CBMs in reducing the risk of misperceptions. Therefore, any future terms of reference of the Ad Hoc Committee should also include the need for engaging in actual multilateral negotiations with the objective of establishing an effective legal agreement to prevent an arms race in outer space.

17. One delegation from the Group of 21 voiced concern at the fact that major Powers continued to place more sophisticated defence systems in outer space. It stated that anti-ballistic missile defence systems were contrary to the spirit of various international agreements concerning the exploration and use of outer space for the benefit and in the interests of all mankind. Increased efforts needed to be made in the Ad Hoc Committee to arrive at an international legal régime preventing the militarization of outer space. With reference to the work done by the Friends of the Chairman on confidence-building measures and on questions of terminology and other relevant legal questions, the delegation said that, while the first ones increase transparency and predictability, they should not become a substitute for the primary objective of prohibiting the development, testing, manufacture, deployment and use of all space weapons. The definition of generally accepted terms was also important but should not be seen as an end in itself; it should perhaps be tackled specifically, with an analysis of existing initiatives, in order to achieve progress in the strengthening of the existing legal régime. Hence the delegation suggested to discuss the Venezuelan proposal (document CD/851 of 2 August 1988), namely to amend Article IV of the 1967 Outer Space Treaty so as to extend the scope of the ban on weapons in space.

18. The delegation of the Netherlands stated that, due to changes in the international security environment, new possibilities had been created for the

utilization of space technology for peaceful purposes. The delegation agreed with the Chairman's conclusion that the time had come to envisage the elaboration of a legal instrument establishing CBMs. It believed that the Ad Hoc Committee could engage in negotiating a set of CBMs concerning three different subjects:

(a) reinforcing existing legal instruments;

(b) notification of launches of ballistic missiles; and

(c) information concerning space activities.

Welcoming the suggestion that a new mandate should be considered for the Ad Hoc Committee, the delegation expressed the hope that it would finally be possible in 1994 to establish an Ad Hoc Committee with a mandate which would be better suited to practical needs.

19. The delegation of Poland felt that CBMs presented the most direct route to the ultimate goal - a safe and stable outer space régime. It supported the idea of using CBMs as an important instrument and an intermediate step towards that goal. It believed that a suitable legal instrument on CBMs would offer the international community a convenient "parking orbit" from which to seek to reach the final objective. The problem was one of judicious choice - which "rules of the road" should be considered, and what "code of conduct" should be contemplated first. From this point of view, Poland had no difficulty in supporting the course of action of this Committee which the Chairman had proposed in his paper CD/OS/WP.65.

20. The delegation of the Russian Federation noted that the discussion at the Committee was already focussing to a large extent on the numerous available proposals on CBMs. It was suggested that the next logical step would be to take the course of action proposed by the Chairman in his paper CD/OS/WP.65. It was pointed out that all the justifiable concerns of the States regarding the specific aspects of the proposed CBMs would be taken care of in the course of future negotiations on the subject. The delegation also shared the view that the future mandate of the Committee should stipulate that CBMs are only a first step on the road to preventing an arms race in outer space, which remains a final goal of the Committee.

21. The delegation of Sweden indicated that many useful and interesting proposals had been submitted concerning CBMs. Of special interest was the French proposal on prior notification of launchers of space objects and ballistic missiles. According to Sweden, this proposal had a vast confidence-building potential and deserved concrete treatment within the

Committee. In its view, the time was now ripe to begin solid negotiations on CBMs, and therefore the Committee should have a negotiating mandate on this issue. This kind of mandate would be a reasonable compromise between no negotiations at all and all-encompassing negotiations. In this context, it felt that a mandate along the lines of the Chairman's proposal in his working paper CD/OS/WP.65 should be seriously considered.

22. The delegation of Turkey, a non-member of the Conference on Disarmament, considered that the French proposal announced on 16 March 1993 was useful for reflection, but its application would depend on the existence of an efficient system of verification and would require universal participation for its functioning. Because of the absence of real sanctions in case of non-compliance, the system absolutely necessitated the participation of States possessing a system of detection and those who were able to launch ballistic missiles.

23. There continued to be general recognition in the Ad Hoc Committee of the importance - and urgency as seen by the majority of the delegations - of preventing an arms race in outer space and the readiness to contribute to that common objective. The work of the Committee since its establishment in 1985 had contributed to the accomplishment of this task. The debates and the presentations made by experts at this annual session with the emphasis on confidence-building measures contributed to further identifying and clarifying a number of issues relevant to the prevention of an arms race in outer space. There was again recognition of the significant role that the legal régime applicable to outer space played in the prevention of an arms race in that environment, and of the need to consolidate and reinforce that régime and enhance its effectiveness, and of the importance of strict compliance with existing agreements, both bilateral and multilateral. In the course of the deliberations, the common interest of mankind in the exploration and use of outer space for peaceful purposes was acknowledged. The Ad Hoc Committee also recalled the importance of paragraph 80 of the Final Document of the first special session devoted to disarmament, which stated that 'in order to prevent an arms race in outer space, further measures should be taken and appropriate international negotiations held in accordance with the spirit of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and other Celestial Bodies'. The Ad Hoc Committee continued its examination of existing, and some new, proposals aimed at preventing an arms race in outer space to ensure that its exploration and

use will be carried out exclusively for peaceful purposes in the common interest and for the benefit of all mankind.

24. In the context of the experts' contributions to the discussions on all aspects of the mandate and programme of work, the importance of the presentations in the Committee relating to confidence-building measures and to greater transparency and openness in outer space made in the course of the 1993 session was recognized by the Committee. Although cognizant of the various positions on these matters, the Committee also recognized the relevance of that discussion to the work of the Committee.

25. In this regard the Chairman presented suggestions for the future work of the Ad Hoc Committee and its mandate as contained in document CD/OS/WP.65, proposing a negotiating mandate on CBMs. The majority of the delegations, while emphasizing that the scope of the mandate of the Ad Hoc Committee should not be narrowed and priorities in this field not altered, held the position that the Ad Hoc Committee should be given a negotiating mandate encompassing all relevant aspects of prevention of an arms race in outer space. A number of delegations shared and supported the view of the Chairman of the Ad Hoc Committee for the need to widen and change the nature of the present mandate to enable it to negotiate on CBMs. A few States, however, believed that the Ad Hoc Committee had still not yet identified any aspect of space activities which would lend itself to negotiations.

26. The Committee noted the valuable and significant contribution to the discussions made by the experts from several delegations and expressed its appreciation to those delegations that provided contributions. The Committee equally voiced its appreciation of the work by the Friends of the Chairman and their organization of open-ended consultations on the issues of CBMs, terminology and other relevant legal aspects related to the prevention of an arms race in outer space. There was wide agreement that the conclusion of an international agreement, or agreements, to prevent an arms race in outer space remained the fundamental task of the Committee, and the concrete proposals on CBMs could form an integral part of the said agreements.

IV. CONCLUSIONS

27. It was agreed that substantive work on all these issues should continue at the next session of the Conference. Therefore, it was recommended that at the beginning of the 1994 session, the Conference on Disarmament re-establish the Ad Hoc Committee on Prevention of an Arms Race in Outer Space with an appropriate mandate, taking into account the work undertaken since 1985.

CONFERENCE ON DISARMAMENT

CD/1271
24 August 1994

Original: ENGLISH

REPORT OF THE AD HOC COMMITTEE ON PREVENTION OF AN ARMS RACE IN OUTER SPACE

I. INTRODUCTION

1. At its 666th plenary meeting on 25 January 1994, the Conference on Disarmament re-established an Ad Hoc Committee on the item "Prevention of an Arms Race in Outer Space" with the mandate contained in document CD/1125 of 14 February 1992.

II. ORGANIZATION OF WORK AND DOCUMENTS

2. At its 669th plenary meeting on 3 February 1994, the Conference on Disarmament appointed Ambassador Perez Novoa of Cuba as Chairman of the Ad Hoc Committee. Mr. Vladimir Bogomolov, Political Affairs Officer, United Nations Centre for Disarmament Affairs, continued to serve as the Committee's Secretary.

3. The Ad Hoc Committee held 19 meetings between 15 February and 23 August 1994.

4. In addition to the documents of the previous sessions[1/] the Ad Hoc Committee had before it the following documents relating to the agenda item submitted to the Conference on Disarmament during the 1994 session:

1/ The List of Documents of the previous Sessions may be found in the 1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992 and 1993 Reports of the Ad Hoc Committee (CD/642, CD/732, CD/787, CD/870, CD/956, CD/1039, CD/1111, CD/1165 and CD/1217 respectively), and in the special report to the Third Special Session of the General Assembly devoted to Disarmament (CD/834).

GE.94-63971

CD/OS/WP.68	1994 Programme of Work
CD/OS/WP.69	Draft Guidelines regarding Measures on Confidence Building and Predictability in Outer Space Activities (by Alexander V. Vorobiev, Friend of the Chairman)
CD/OS/WP.70	Paper by Professor N. Ronzitti (Italy), (Friend of the Chair on Terminological and Legal Issues) - Legal Definitions
CD/OS/WP.71	Questionnaire on Legal and Terminological Issues - (Friend of the Chair, Professor N. Ronzitti, Italy)
CD/OS/WP.72	Outer Space and Modern Conflict - Some Reflections on Military and Security Related Space Uses and Associated Legal Policy Issues - (Dr. Wulf von Kries, Germany)
CD/OS/WP.73	Runaway proliferation of orbital debris: security implications and possible cooperative responses - (Professor P. Farinella, Italy)
CD/OS/WP.74	Summary of Experts' Presentations
CD/OS/CRP.16 and Corr.1[2/]	Resumé by the Friend of the Chairman of Proposals and the Course of Discussions on Confidence-Building Measures in Outer Space

III. SUBSTANTIVE WORK DURING THE 1994 SESSION

5. Following consultations on the organization of work at its first meeting on 15 February 1994, the Ad Hoc Committee adopted the following Programme of Work for the 1994 Session:

"1. Examination and identification of issues relevant to the prevention of an arms race in outer space.

2. Existing agreements relevant to the prevention of an arms race in outer space.

3. Existing proposals and future initiatives on the prevention of an arms race in outer space.

In carrying out its work with a view to finding and building upon areas of convergence, the Ad Hoc Committee will take into account relevant proposals, initiatives and developments since the establishment of the Committee in 1985 including those presented at the 1993 session of the Conference on Disarmament.

The practice of appointing Friends of the Chairman to organize open-ended consultations on issues of specific interest to the Committee should continue."

2/ CD/OS/CRP.16/Corr.1* - reissued in English only

6. The Ad Hoc Committee agreed that it would give equal treatment to the subjects covered by its mandate and specified in its Programme of Work. Accordingly, the Committee agreed to allocate the same number of meetings to each of those subjects, while any member wishing to do so may discuss any subject important and relevant to the work of the Committee.

7. The work of the Ad Hoc Committee was governed by the mandate which aims at the Prevention of an Arms Race in Outer Space.

8. During the meetings of the Ad Hoc Committee, various Groups and individual delegations reaffirmed their respective positions which can be found in the previous annual reports of the Committee, related Conference documents and Working Papers, and Plenary Records, or further elaborated on them as indicated in subsequent paragraphs.

9. The Ad Hoc Committee once again benefitted from the scientific and technical contributions of experts from various delegations, who addressed the following specific issues and initiatives under consideration in the Committee:

- "Feasibility of different measures envisaged for a Code of Conduct" - Mr. F. Alby (France)

- "Runaway proliferation of orbital debris: security implications and possible cooperative responses" - Professor P. Farinella (Italy)

- "Outer Space and Modern Conflict - Some Reflections and Security Related Space Uses and Associated Legal Policy Issues" - Dr. W. von Kries (Germany)

The summary of those presentations is contained in document CD/OS/WP.74 dated 15 August 1994. The Committee expressed its appreciation to the delegations who provided these contributions.

10. The Ad Hoc Committee carried out substantive work on legal and terminological issues and on confidence-building measures during the consultations held by the Friends of the Chair who were appointed by the Chairman to deal with the following issues without prejudice to positions of delegations in open-ended consultations:

(i) confidence-building measures in outer space (Mr. Alexander V. Vorobiev, Delegation of the Russian Federation)

(ii) terminology and other relevant legal aspects related to prevention of an arms race in outer space (Mr. Natalino Ronzitti, Delegation of Italy).

Summary of the efforts of the Friends of the Chairman

(a) On legal and terminological issues the discussion in the Committee was stimulated by Questionnaires and Working Papers submitted by the Friend of the Chair (documents CD/OS/WP.70 dated 1 July 1994 and CD/OS/WP.71 dated 1 August 1994). These papers took stock of the work already done in previous years on this subject and of existing proposals. The questionnaire (document CD/OS/WP.71) was drafted in order to find out, inter alia, whether the existing Space Treaties were sufficient for the prevention of an arms race in outer space and, in the event of a negative response, what kind of legal instrument or measures should be employed for filling in any existing lacuna. In this context besides drafting new instruments, other legal techniques were also explored, such as Treaty revision, the conclusion of additional protocols, the establishment of CBMs complementing existing Agreements, or the conclusion of a new international agreement or agreements. Delegations found the question of terminological issues important, even though it was generally held that the completion of work on terminology was not a conditio sine qua non for negotiating new instruments or measures for the prevention of an arms race in outer space. Since many existing instruments contained legal definitions, the Friend of the Chair suggested that a possible approach might consist of making a compilation of terms already defined. In effect, definitions of legal terms could be found both in multilateral and bilateral Treaties on outer space and, to a certain extent, even in recent resolutions. Existing proposals also could constitute a source of definitions of legal terms.

(b) The Friend of the Chair on confidence-building measures proposed to the Committee to discuss CBMs on the basis of the table contained in document CD/OS/WP.58 dated 12 March 1993. The delegations agreed to this proposal and considered individually each of the three main clusters of CBMs as set out in the table: measures to improve the transparency of pre-launch activities; rules-of-the-road measures; and measures required for monitoring purposes in connection with the proposed code of conduct. Proceeding from the course of the discussions on the substance of the confidence-building measures which took place in the Ad Hoc Committee during the first part of the 1994 session and previous years, the Friend of the Chair presented, at his own discretion, a resumé of the existing proposals and the discussions held (CD/OS/CRP.16 of

17 May 1994) and the "Draft Guidelines regarding measures on confidence-building and predictability in outer space activities (CD/OS/WP.69 of 1 July 1994). The latter Working Paper also contained a questionnaire which covered some of the bigger issues raised by the delegations in regard to the Draft Guidelines. Some of the initial observations of the delegations regarding the Draft Guidelines concerned the format of the document and its choice of CBMs. At the same time, an observation was made that the Draft Guidelines could serve as a possible basis for further work on CBMs. The Friend of the Chairman proposed to depart from the discussions on the format of the document on CBMs and to come to this issue when a better understanding on the substance of the CBMs in outer space was reached. At the subsequent consultations the delegations commented on the scope of the exchange of information and notifications, as well as the time frame for providing them, on the establishment of an international outer space monitoring system and a communications network, and on the issue of whether elaborate notifications for space objects with nuclear power sources and assessment of compliance should be part of the CBMs régime. Pointing to the need for more comments from the delegations for that purpose, the Friend of the Chairman proposed to try at the next session to incorporate the views of the delegations in the Draft Guidelines or another consolidated document.

The Committee voiced its appreciation of the work by the Friends of the Chair and their organization of open-ended consultations.

Summary of the general discussions

11. During the annual session in the course of the debates, as well as in the open-ended consultations, the attention of the Committee was drawn to the issues of the adequacy of the current legal régime, confidence-building measures in outer space activities, and terminological aspects of the work of the Committee.

12. Members of the Group of 21 and China maintained that the prevention of an arms race in outer space would pave the way for the exploration and peaceful uses of outer space solely for the common interest and benefit of mankind. Those delegations emphasized that the existing legal instruments relating to outer space were far from effective in preventing an arms race in outer space. The same delegations, as well as the Russian Federation, pointed out

that those legal instruments did not prevent launching into space and testing in space of conventional weapons as well as weapons based on new physical principles, such as lasers, very high frequency weapons, particle beam weapons and others. Delegations of the Group of 21 and China expressed concern that given the similarities of requisite technology, the unrestrained development of ballistic missile defences could lead to development of ASAT weapons. These delegations further shared the views expressed by, inter-alia, the delegations of Indonesia and China that certain space powers were still engaged in activities which may lead to an arms race in outer space. In this respect they felt that States with advanced technology and capabilities had special responsibilities for the discontinuance of all weapon-related activities adversely affecting the peaceful uses of outer space. They were of the view that the Ad Hoc Committee had also to address the question of the demilitarization of outer space. The above-mentioned delegations maintained that the task of preventing an arms race in outer space was still of importance and urgency. They believed that the international political situation was now conducive to the conclusion of a treaty banning an arms race in outer space which should be universal, comprehensive, legally-binding, multilateral and effectively verifiable. Some members of the Group of 21 stressed that the voluminous and relevant documentation produced in the Ad Hoc Committee since its establishment in 1985 on the subject could constitute a basis for the rapid elaboration of a legal régime that prevents an arms race in outer space. They suggested that the Committee should examine, inter alia, the proposals which had been made over the years to amend Article IV of the Outer Space Treaty of 1967 to include the prohibition of all types of space weapons. Some of them specifically referred to the idea of a ban on the testing, development and deployment of ASATs. In this regard, this group of delegations stressed that the Committee should also examine the reinforcement of existing legal instruments by more effective implementation and broader participation of States. Germany and Algeria felt that the time was right to put into practice the concrete proposals made by France, the former USSR, and Canada, with regard to the setting up of international agencies under the auspices of the UN, entrusting them with monitoring functions in outer space.

13. Some delegations of the Western Group considered that the UN Charter, the existing multilateral treaties relating to outer space, and the outer space related arms control provisions of other multilateral and bilateral treaties

(such as the 1963 Partial Test Ban Treaty, the 1972 ABM Treaty, the 1977 ENMOD Convention, the 1986 Convention on Assistance in case of a Nuclear Accident or Radiological Emergency, the 1992 International Telecommunication Constitution and Convention, and the 1993 START II Treaty), together with customary international law, as well as the domestic law of individual nations, interacted and complemented each other in such a way, that together they provided an equitable, practical, balanced and extensive legal system for ensuring the use of outer space for peaceful purposes. Those delegations maintained that there was no arms race in outer space, nor was there any indication of significant on-going development by any State with respect to arms in space. Therefore, in their view there was no need for new legally-binding instruments, or a need to revise existing agreements in this respect. Instead, wider adherence to existing Agreements should be encouraged.

14. Some delegations of two regional Groups stated that the end of the "cold war" had brought considerable changes to the major space Powers' activities and to their national legislature. In particular it was mentioned that in August 1993 the "Law of the Russian Federation on the space activity" had been adopted which corresponded to the existing international obligations of the country regarding the prevention of an arms race in outer space, and in certain aspects went even further. In March 1994 the USA announced a new policy on "foreign access to remote sensing space capabilities". It was characterized as an attempt in space-related security regulation and an example of the emerging need for concerted policy and legal action by the international community in the domain of "space for security" uses.

15. Various members of different regional groups viewed CBMs primarily as an important step on the way to the prevention of an arms race in outer space; others viewed CBMs, as such and independently, as useful measures which could increase confidence in relation to States' activities in outer space. In this regard, some delegations addressed anew, or further developed, proposals aimed at increasing the transparency of space operations generally, the range of information concerning satellites in orbit, as well as those that would establish rules of behaviour governing space operations. Some delegations suggested that the Committee should take advantage of the commonly shared view on the stabilizing role of CBMs and should start developing concrete CBMs, once their relevance and feasability for arms control purposes would be agreed

upon. In this connection some delegations furthermore proposed that the Committee start developing a régime of notification of launches of space objects and ballistic missiles which would supplement the 1975 Registration Convention, as well as CBMs on "rules of the road" relating to space debris, manoeuvres in outer space, or the establishment of keep-out zones. Some delegations also noted that the growing convergence of views on the elaboration of measures designed to strengthen transparency, confidence and security, could facilitate developing concrete CBMs. Delegations of the Group of 21 and China emphasized that because of the supplementary and interim nature of CBMs, work in the Ad Hoc Committee should not be devoted solely to the formulation of CBMs and should in no way detract, retard or negatively affect, the attainment of its primary objective, namely, the conclusion of an international agreement, or agreements, on the prevention of an arms race in outer space, with a view to reinforcing the existing legal régime. Delegations of the Group of 21 felt that work on CBMs should be carried out in parallel with the primary concern and objective of the Ad Hoc Committee. Those delegations, along with China, believed that any CBMs agreed to should be ones which could form part of a legally-binding, multilaterally negotiated instrument on the prevention of an arms race in outer space. Egypt suggested that the countries with space activities could also voluntarily implement CBMs which they may agree to amongst themselves. Some delegations of the Group of 21 proposed that transparency and CBMs in outer space should be comprehensive and notification of space objects should extend to those objects launched in the past, even prior to 1975, and not limited only to the objects to be launched in the future. Some delegations of the Western Group, one delegation of the Eastern European Group, as well as one delegation not belonging to any regional Group, were of the opinion that this latter proposal was neither useful nor realistic.

16. China, Egypt and India reiterated that work on terminology should serve the basic purpose of formulating new international legal instruments aimed at prevention of an arms race in outer space. Egypt and India stated that harmonization of work was however not likely unless a negotiating mandate is given to the Ad Hoc Committee. China further considered that the initial work on terminology should be the identification and clarification of relevant terms.

IV. CONCLUSIONS

17. Closer coordination between the Ad Hoc Committee on Prevention of an Arms Race in Outer Space and the Committee on Peaceful Use of Outer Space on the issues of mutual concern was favoured.

[18. It was agreed that substantive work on all these issues should continue at the next session of the Conference. Therefore, it was recommended that at the beginning of the 1995 session, the Conference on Disarmament re-establish the Ad Hoc Committee on Prevention of an Arms Race in Outer Space with an appropriate mandate, taking into account the work undertaken since 1985.]*

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* The brackets requested by the Western Group at the last meeting of the Ad Hoc Committee held on 23 August 1994 are not related to the substantive issues discussed by the Committee.

CONFERENCE ON DISARMAMENT

CD/1487
21 January 1998

Original: ENGLISH

CANADA

WORKING PAPER CONCERNING CD ACTION ON OUTER SPACE

Canada proposes that

- a CD Ad Hoc Committee on Outer Space be established with the mandate to negotiate a convention for the non-weaponization of outer space.

BACKGROUND

- There are a number of limited international agreements that deal with outer space, most notably "The Treaty on Principles Governing the Activities of States in the Exploration and use of Outer Space, Including the Moon and Other Celestial Bodies". This Treaty is commonly referred to as the "Outer Space Treaty".

- Under Article IV of the Outer Space Treaty, States Parties to the Treaty "undertake not to place in orbit around the Earth any objects carrying nuclear weapons or any kinds of weapons of mass destruction ... or station such weapons in outer space in any other manner."

- There is no current multilateral agreement banning the deployment of weapons other than weapons of mass destruction in outer space.

- There is thus a need for the international community to address this problem, and to do so multilaterally, particularly in view of the growing number of states with the capacity or near-capacity to place objects into orbit.

- We acknowledge that there is currently no arms race in outer space. We accept the current military uses of outer space for surveillance, intelligence-gathering and communications. Our focus is on the non-weaponization of outer space, i.e. no positioning of actual weapons in outer space.

- On verification of such a Treaty many useful ideas already exist, including work done in earlier CD Ad Hoc Committees on Outer Space. We welcome a realistic and early reappraisal of these basic concepts.

- Canada has called for the establishment of a CD Ad Hoc Committee with the mandate given above. We recognize that there remains a variety of views on the possible scope of such a Treaty. As an interim step towards full negotiations, we support the appointment of a CD Special Coordinator with an appropriate mandate to explore prospects for the early establishment of an Ad Hoc Committee with a negotiating mandate.

CONFERENCE ON DISARMAMENT

CD/1569
4 February 1999

Original: ENGLISH

CANADA

Proposal concerning CD action on outer space

Canada renews its proposal that

- The CD establish an ad hoc committee on outer space with the mandate to negotiate a convention for the non-weaponization of outer space.

BACKGROUND

- A number of limited international agreements deal with outer space, most notably "The Treaty on Principles Governing the Activities of States in the Exploration and use of Outer Space, Including the Moon and Other Celestial Bodies".

- Under Article IV of that Treaty, States Parties to the Treaty "undertake not to place in orbit around the Earth any objects carrying nuclear weapons or any kinds of weapons of mass destruction ... or station such weapons in outer space in any other manner."

- There is no multilateral agreement banning the deployment of weapons other than weapons of mass destruction in outer space.

- There are a growing number of States with the capacity or near-capacity to place objects into orbit; this will only increase in the future.

- There is currently no arms race in outer space. Canada accepts the current military uses of outer space for surveillance, intelligence-gathering and communications. Our focus is on the non-weaponization of outer space, i.e. no positioning of actual weapons in outer space.

- By 'weapon' we mean e.g. "any device or component of a system designed to inflict physical harm through deposition of mass and/or energy on any other object".

- On verification of such a Treaty many useful ideas already exist, including work done in earlier CD Ad Hoc Committees on Outer Space. We welcome an early realistic reappraisal of those basic concepts.

- As an interim step towards full negotiations, Canada would accept the appointment of a CD Special Coordinator with an appropriate mandate to explore prospects for the early establishment of an ad hoc committee with a negotiating mandate. The above proposal as well as other relevant suggestions could then be fully considered for future action.

CONFERENCE ON DISARMAMENT

CD/1576 *
18 March 1999

ENGLISH

CHINA

Draft decision on the re-establishment of an ad hoc committee on the prevention of an arms race in outer space and its mandate:

1. The Conference on Disarmament decides to reestablish under item 3 of its agenda entitled "Prevention of an arms race in outer space" an ad hoc committee which shall negotiate and conclude an international legal instrument banning the test, deployment and use of any weapons, weapon systems and their components in outer space, with a view to preventing the weaponization of outer space.

2. In carrying out its mandate, the ad hoc committee shall take into consideration all relevant proposals present and future and report to the Conference on the progress of its work before the conclusion of the 1999 session.

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*/Re-issued for technical reasons.

GE.99-60904

CONFERENCE ON DISARMAMENT

CD/1606
9 February 2000

ENGLISH
Original: CHINESE

LETTER DATED 9 FEBRUARY 2000 FROM THE PERMANENT REPRESENTATIVE OF CHINA TO THE CONFERENCE ON DISARMAMENT ADDRESSED TO THE SECRETARY-GENERAL OF THE CONFERENCE TRANSMITTING A WORKING PAPER ENTITLED "CHINA'S POSITION ON AND SUGGESTIONS FOR WAYS TO ADDRESS THE ISSUE OF PREVENTION OF AN ARMS RACE IN OUTER SPACE AT THE CONFERENCE ON DISARMAMENT"

On instructions from the Chinese Government, I have the honour to attach herewith a working paper entitled "China's position on and Suggestions for Ways to Address the Issue of Prevention of an Arms Race in Outer Space at the Conference on Disarmament".

I would be grateful if this document could be issued and circulated as an official document of the Conference on Disarmament.

(Signed) Hu Xiaodi
Ambassador for Disarmament Affairs
Head of the Delegation of China to
the Conference on Disarmament

China

Working Paper

CHINA'S POSITION ON AND SUGGESTIONS FOR WAYS TO ADDRESS THE ISSUE OF PREVENTION OF AN ARMS RACE IN OUTER SPACE AT THE CONFERENCE ON DISARMAMENT

Outer space belongs to all mankind. All countries have equal rights in the exploration and use of outer space for peaceful purposes although their levels of economic and scientific development may differ. It is the shared desire of all mankind to forestall the spread of weapons and an arms race in outer space.

Some people believe that since currently there is no arms race in outer space, the CD has no need to discuss its prevention or negotiate the conclusion of international legal instruments in this regard. However, history and reality have both shown not only that there are indeed attempts, programmes and moves unilaterally to seek military and strategic superiority in or control over outer space but that there have been new developments in this respect. Such development, if unchecked, may lead to the weaponization of outer space in the near future or even to a multilateral arms race in outer space. Therefore, it is a present and pressing necessity for the international community to take effective measures to stop such negative developments.

I. OUR VIEWS ON HOW TO ADDRESS THE ISSUE OF PAROS AT THE CONFERENCE ON DISARMAMENT

As the single multilateral disarmament negotiating forum, the Conference on Disarmament (Conference) should concentrate on the most pressing and prominent issues in international arms control and disarmament, the ones that have the greatest bearing on global peace and security in the twenty-first century. PAROS is one such important issue, and should therefore be a top priority at the Conference. The Conference should play a primary role in the negotiations to prevent any form of arms race in outer space.

At its fifty-fourth session the United Nations General Assembly once again adopted, by an overwhelming majority, a resolution on PAROS. It was reaffirmed that negotiating an international agreement or agreements to prevent an arms race in outer space remains a priority task of the CD's Ad Hoc Committee. The fact that the resolution was adopted without opposition reflects the common aspiration and insistent demand of the international community to prevent an arms race in outer space.

The General Assembly also adopted at its fifty-fourth session, and also by an overwhelming majority, a resolution on preservation of and compliance with the Anti-Ballistic Missile Treaty, an issue that is related to the prevention of an arms race in outer space. In the resolution the General Assembly recognizes the historical role of the 1972 Treaty as a cornerstone for maintaining global peace and security and strategic stability, reaffirms its continued validity and relevance in the current international situation and supports further efforts

by the international community in the light of emerging developments with the goal of safeguarding the inviolability and integrity of the ABM Treaty in which the international community bears strong interest.

Since PAROS was put on the CD agenda in 1982, the Conference has, through the establishment of the Ad Hoc Committee and other means, held discussions on definitions, principles, existing treaties and confidence-building measures, and accumulated experience in this field, preparing the ground for future work in this area. With the accelerated development of outer space weapons, anti-ballistic missiles and other weapon systems, individual countries have stepped up efforts to secure military superiority in outer space and have mapped out and are pursuing plans to secure military superiority on the ground from space. In these circumstances, preventing outer space from becoming a new venue for an arms race without prejudice to its peaceful uses has obviously become the most important and pressing task of the Conference.

To accomplish this, the Conference must first re-establish the Ad Hoc Committee under agenda item 3 to negotiate and conclude an international legal instrument prohibiting the testing, deployment and use of weapons, weapon systems and components in outer space so as to prevent the weaponization of, and an arms race in, outer space.

In carrying out its mandate, the Ad Hoc Committee must take into account all relevant developments and specific proposals, present and future. As a preliminary step towards the negotiation of an international legal instrument, it might discuss and review all pertinent issues, including current military activities in outer space and related developments, their influence on the prevention of an arms race in outer space; shortcomings in the existing international instruments; and the basic elements of the future international legal instrument.

The Chinese delegation has taken note of the various ideas and suggestions on PAROS put forward in the CD. China believes that the re-established Ad Hoc Committee should be an open-ended, all-embracing mechanism where all participants may air and discuss different views. It should set as its ultimate goal and clear mandate the negotiation and conclusion of one or several international legal instruments to prevent the weaponization of and an arms race in outer space.

II. OUR VIEWS ON THE EXISTING INTERNATIONAL LEGAL INSTRUMENTS CONCERNING PAROS

A number of international legal instruments on the peaceful uses of outer space and the prevention of an arms race in outer space have been concluded.

The 1963 Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Under Water prohibits any nuclear weapon test explosion in outer space. The 1996 Comprehensive Nuclear Test Ban Treaty prohibits any nuclear weapon test explosion in any circumstances.

According to 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, outer space, including the moon and other celestial bodies, is not subject to national appropriation by claim of

sovereignty, by means of use or occupation, or by any other means. States Parties to the Treaty undertake 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 establishment of military bases, installations and fortifications, the testing of any type of weapons and the conduct of military manoeuvres on celestial bodies is forbidden.

The 1972 Treaty between the United States and the Union of Soviet Socialist Republics on the Limitation of Anti-Ballistic Missile Systems prohibits the development, testing and deployment of space-based ABM systems or components.

Besides these, the 1972 Convention on International Liability for Damage Caused by Space Objects, the 1975 Convention on Registration of Objects Launched into Outer Space and the 1979 Agreement Governing the Activities of States on the Moon and other Celestial Bodies all contain provisions on outer space activities which have helped to constrain some aspects of military activities in outer space to some extent.

However, these instruments have been ineffective in preventing the weaponization of and an arms race in outer space. Some have imposed limited prohibitions and contained many loopholes and ambiguities. Some have not been fully complied with or are in danger of being violated, amended or even abrogated. Most crucially, as they have failed to reflect the latest developments in aerospace technology they cannot prevent the potential weaponization of outer space or an arms race in outer space in the twenty-first century.

The Chinese delegation believes that the most direct and effective way to prevent the weaponization of and an arms race in outer space is to negotiate and conclude new international legal instruments while strictly observing the existing bilateral and multilateral agreements.

III. CHINA'S BASIC POSITION ON PAROS

China has always opposed arms races, in outer space and elsewhere. It maintains that the exploration and use of outer space should only serve to promote countries' economic, scientific and cultural development and benefit all mankind.

With the use of military satellites, outer space has already been militarized to some extent. Military satellites involve rather complex issues and their role should not be all together negated. Therefore, the primary goal at present in our efforts to prevent the weaponization of and an arms race in outer space is to ban the testing, deployment and use of weapons, weapon systems and components in outer space.

What should be particularly emphasized is that the Powers with the greatest space capabilities bear a special responsibility for preventing the weaponization of and an arms race in outer space and ensuring the use of space for peaceful purposes. Pending the conclusion of a new multilateral legal instrument on the prevention of an arms race in outer space, all countries concerned should undertake not to test, deploy or use any weapons, weapon systems or components in outer space.

IV. TENTATIVE IDEAS ON NEW INTERNATIONAL LEGAL INSTRUMENTS

The Chinese delegation tentatively suggests that the new international legal instruments to prevent the weaponization of and an arms race in outer space, in whatever form or by whatever name, might contain the following basic elements:

(i) Purposes: to prevent the weaponization of and an arms race in outer space, and to use outer space for peaceful purposes.

(ii) Basic obligations: not to test, deploy or use weapons, weapon systems or components. Consideration could also be given to an article on "permissible activities" thus helping to distinguish between activities that are prohibited and those that are not, and thereby safeguarding States Parties' lawful right to utilize outer space for peaceful purposes.

(iii) An article on definitions, providing clear definitions of the concepts mentioned, e.g. "outer space", "space weapons", "weapon systems" and "components of weapon systems".

(iv) Provision for appropriate national implementation measures and the designation or establishment of organizations to ensure that States Parties implement the instruments consistently and effectively.

(v) An article on international cooperation in the peaceful use of outer space promoting international exchanges, technical assistance and cooperation for peaceful purposes so that all countries can share in the economic and technological benefits of scientific advances in outer space, and outer space truly serves all mankind.

(vi) Verification: we must first consider fully how technically feasible it is, and on that basis determine whether to use inspections or alternative means to prevent treaty violations.

(vii) Establishment of an appropriate mechanism for consultations, clarifications and resolution of possible disputes in order to appropriately address such suspicions and disputes as might arise among States Parties.

(viii) Appropriate, rational and workable confidence-building measures to enhance mutual trust among States Parties and forestall unnecessary suspicion about particular activities.

(ix) The procedural articles commonly found in international legal instruments dealing with amendment, length of validity, signature, ratification, entry into force, depository and authentic texts. These may of course also have to resolve some sensitive and key issues.

The Chinese delegation wishes to emphasize that these are only tentative ideas that need to be developed. Our aim in putting them forward is to give all participants food for thought, pool our collective wisdom and encourage a fuller, more detailed examination of the relevant issues at the Conference. We will participate in such discussions and negotiations with an open mind, listening to and accepting good ideas and proposals from all parties and striving unremittingly to prevent the weaponization of and an arms race in outer space and to ensure the continued peaceful use of outer space for the benefit of all mankind.

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CONFERENCE ON DISARMAMENT

CD/1644
30 May 2001

Original: ENGLISH and
RUSSIAN

LETTER DATED 29 MAY 2001 FROM THE PERMANENT REPRESENTATIVE OF THE RUSSIAN FEDERATION ADDRESSED TO THE PRESIDENT OF THE CONFERENCE ON DISARMAMENT TRANSMITTING THE RUSSIAN PROPOSALS CONCERNING THE PROGRAMME OF WORK OF THE CONFERENCE ON DISARMAMENT

The Russian delegation shares the concerns of other delegations in the Conference on Disarmament regarding the current situation in this unique multilateral negotiating forum in the field of disarmament. We have carefully studied all the proposals relating to the Conference's programme of work which have been submitted since 1998, the last time the programme of work was adopted, and we highly appreciate the constructive ideas which they contain.

The Russian Federation would like to make its own contribution to these joint efforts by introducing a package proposal on the programme of work relating to the two outstanding issues, namely, nuclear disarmament and the prevention of an arms race in outer space (PAROS). We are proceeding on the assumption that the consensus on the third priority issue - the launching of substantive work in the Conference on FMCT - still exists.

After thorough consideration, we have decided to support the ideas of a large number of delegations in the Conference and to agree on the establishment of an ad hoc committee to deal with nuclear disarmament. The package also makes provision for the establishment at the same time of an ad hoc committee on PAROS, with a negotiating mandate.

In our view, the Russian proposal is constructive and not detrimental to the positions of any delegation. The wording used in both draft mandates is taken from documents that have been adopted by consensus at various international conferences held in the past.

The Russian delegation has already had an opportunity to discuss this proposal unofficially with many colleagues in the Conference. We are especially grateful to those of them who provided comments and suggestions relating to the draft mandates. We made every effort to take these into consideration in the final version of our proposal.

GE.01-62173 (E) 010601 010601

The Russian delegation hereby requests you, Mr. President, to take the necessary steps to have this letter and the attached proposal on the Conference's programme of work issued as an official document of the Conference and to distribute it to all member States and observers of the Conference on Disarmament. Permit me to express the hope that the Russian proposal will be considered by all delegations in a spirit of good will and will contribute to restarting the work of the Conference.

(Signed): Vasily SIDOROV
Ambassador
Permanent Representative

Draft

Nuclear disarmament

The Conference on Disarmament decides to establish, for the duration of the 2001 session, under item 1 entitled "Cessation of the nuclear arms race and nuclear disarmament", an Ad Hoc Committee to deal with nuclear disarmament.

The Ad Hoc Committee will take into consideration all relevant views and proposals present and future and also address questions related to its mandate.

The Ad Hoc Committee will report to the Conference on the progress of its work before the conclusion of the 2001 session.

Draft

Prevention of an arms race in outer space

The Conference on Disarmament decides to establish, for the duration of the 2001 session, under item 3 entitled "Prevention of an arms race in outer space", an Ad Hoc Committee to negotiate with a view to reaching agreement on a regime capable of preventing an arms race in outer space. This regime could take the form of an internationally legally binding instrument.

The Ad Hoc Committee will take into consideration all relevant views and proposals present and future and also address questions related to its mandate.

The Ad Hoc Committee will report to the Conference on the progress of its work before the conclusion of the 2001 session.

CONFERENCE ON DISARMAMENT

CD/1645
6 June 2001

ENGLISH
Original: CHINESE and
ENGLISH

LETTER DATED 5 JUNE 2001 FROM THE PERMANENT REPRESENTATIVE OF CHINA ADDRESSED TO THE SECRETARY-GENERAL OF THE CONFERENCE ON DISARMAMENT TRANSMITTING A WORKING PAPER ENTITLED "POSSIBLE ELEMENTS OF THE FUTURE INTERNATIONAL LEGAL INSTRUMENT ON THE PREVENTION OF THE WEAPONIZATION OF OUTER SPACE"

Upon the instruction from the Chinese government, I have the honor to attach herewith the Chinese and English text of a working paper entitled *"Possible Elements of the Future International Legal Instrument on the Prevention of the Weaponization of Outer Space"*.

I would be grateful if this document could be issued and circulated as an official document of the Conference on Disarmament.

(Signed): Hu Xiaodi
Ambassador for Disarmament Affairs
Head of Delegation of China to
The Conference on Disarmament

GE.01-62244

Delegation of China

Possible Elements of the Future International Legal Instrument on the Prevention of the weaponization of Outer Space

China is dedicated to promoting the international community to negotiate and conclude an international legal instrument on the prevention of the weaponization of and an arms race in outer space. In February 2000, the Chinese delegation submitted to the Conference on Disarmament a working paper (CD/1606, 9 February 2000) entitled "*China ' s Position on and Suggestions for Ways to Address the Issue of Prevention of an Arms Race in Outer Space at the Conference on Disarmament*" , which outlined China' s tentative ideas on the above mentioned international legal instrument. China has further substantiated and developed these ideas. In our view, the future legal instrument may include, *inter alia*, the following elements:

* * *

I. Possible Name of the Instrument

-Treaty on the Prevention of the Weaponization of Outer Space.

II. Preamble

-Outer space is the common heritage of mankind. It is the common aspiration of mankind to use outer space for peaceful purposes.

-Outer space is playing an ever-increasing role in future development of mankind.

-There is a potential danger of armament development and combatant activities being extended to outer space.

-Prevention of the weaponization of and an arms race in outer space becomes a realistic and pressing task facing the international community.

-The United Nations General Assembly has adopted a series of resolutions on peaceful uses of outer space and prevention of an arms race in outer space, which have provided a prerequisite for and a basis of the prevention of the weaponization of and an arms race in outer space.

-The existing arms limitation and disarmament agreements relevant to outer

space. including those bilateral ones, and the existing legal regime concerning the use of outer space. have played a positive role in the peaceful use of outer space and the regulating of activities in outer space. These agreements and regime should be strictly complied with. However. these agreements and legal regime are unable to effectively prevent the weaponization of and an arms race in outer space.

-For the benefits of mankind, outer space shall always be used for peaceful purposes, and shall never be allowed to become a battlefield.

-Only strict prevention of the weaponization of outer space can eliminate the emerging danger of an arms race in outer space and fully safeguard the security of outer space properties of all countries, which is indispensable for maintaining global strategic balance, world peace and security of all countries.

III. Basic Obligations

- Not to test. deploy or use in outer space any weapons, weapon systems or their components.

- Not to test, deploy or use on land, in sea or atmosphere any weapons, weapon systems or their components that can be used for war-fighting in outer space.

- Not to use any objects launched into orbit to directly participate in combatant activities.

- Not to assist or encourage other countries, regions, international organizations or entities to participate in activities prohibited by this legal instrument.

IV. Definitions

- *Outer space* is the space above the earth' s atmosphere, i.e. space 100km above the sea level of the earth.

- *Weapons* are devices or facilities that strike, destroy or disrupt directly the normal functions of a target by various destructive ways.

- *Weapon systems* are the collective of weapons and their indispensably linked parts that jointly accomplish battle missions.

- *Components of weapon systems* are subsystems that directly and indispensably involved in accomplishing battle missions.

V. National Measures for Implementation

-Each country shall, in accordance with its constitutional process, take any

necessary measures to prohibit or prevent any activities in violation of this legal instrument on its territory or in any other place under its jurisdiction or control.

VI. Peaceful Use of Outer Space

-This legal instrument shall not be construed as impeding scientific exploration in outer space by all its States Parties or other military uses not prohibited by this legal instrument.

-Each country shall abide by general principles of international laws in conducting outer space activities, and shall not undermine the sovereignty, security and interests of the other countries.

VII. Confidence Building Measures

- To enhance mutual trust. each State Party shall promulgate its space programme, declare the locations and scopes of its space launch sites. the property and parameters of objects to be launched into outer space. and notify the launching activities.

VIII. Verification Measures

(Needs further consideration and development)

IX. Settlement of Disputes

- If a State Party suspects treaty violation by another State Party. States Parties concerned shall undertake to consult and cooperate to resolve the issue. Each State Party shall have the right to request clarification from the suspected State Party. The suspected State Party is obliged to provide relevant information to clarify the matter.

- If consultation and clarification fail to produce satisfactory results for the States Parties concerned. the suspecting State Party can file charges to the executive organization of this legal instrument. The charges shall include the supporting evidence as well as the request for the organization to review the matter.

- Each State Party undertakes to cooperate in the investigation by the executive organization of this legal instrument in accordance with the request it has received.

X. Executive Organization of this Legal Instrument

In order to achieve the purposes and objectives of this legal instrument. and

ensure compliance with the obligations of this instrument. the States Parties hereby establish an executive organization of this legal instrument. whose duties are, inter alia. as follows:

- To receive charges of non-compliance by States Parties.

- To investigate whether there are non-compliant activities.

- To organize consultations on non-compliance concerns between States Parties concerned.

- To urge States Parties that have violated this legal instrument to take measures to stop non-compliant activities and make up for the consequences arising therefrom.

XI. Amendments

- Any State Party may propose amendments to this legal instrument. The text of any proposed amendment shall be submitted to the depositary who shall circulate it to all the State Parties. Thereupon. if requested to do so by one-third or more of the States Parties. the depositary shall convene a conference. to which he shall invite all the States Parties, to consider such an amendment.

- Any amendment to this legal instrument must be approved by a majority of vote of all its States Parties. The amendment shall enter into force for all the States Parties upon the deposit of such instruments of ratification by a majority of all the States Parties.

XII. Duration and Withdrawal

- This legal instrument shall be of unlimited duration.

- Each State Party to this legal instrument shall, in exercising its national sovereignty, have the right to withdraw from this legal instrument if it decides that extraordinary events. related to the subject matter of this legal instrument, have jeopardized the supreme interests of its country. It shall give notice of such withdrawal to the depositary of this legal instrument six months in advance. Such notice shall include a statement of the extraordinary events it regards as having jeopardized its supreme interests.

XIII. Signature and Ratification

-This legal instrument shall be open for signature by all States at United Nations headquarters in New York. Any State which does not sign this legal instrument before its entry into force may accede to it at any time.

-This legal instrument shall be subject to ratification by the signatory states. Instrument of ratification or accession shall be deposited with the Secretary-General of the United Nations.

XIV. Entry into Force

- This legal instrument shall enter into force upon the deposit of instruments of ratification by XX States including the Permanent Member States of the United Nations Security Council.

- For those States whose instruments of ratification or accession are deposited after the entry into force of this legal instrument, it shall enter into force on the date of the deposit of their instruments of ratification or accession.

XV. Authentic Texts

-This legal instrument, of which the Arabic, Chinese, English, French, Russian and Spanish texts are equally authentic, shall be deposited with the Secretary-General of the United Nations, who shall send certified copies thereof to all signatory and acceding States.

* * *

The Chinese delegation would like to reiterate that the above-mentioned elements are still very tentative. Further revision, amendment, improvement and perfection are needed. We are ready, in an open attitude, to work with other delegations, to conclude at an early date a legal instrument aimed at preventing the weaponization of and an arms race in outer space, through hard work and serious negotiations.

CONFERENCE ON DISARMAMENT

CD/1679
28 June 2002

ENGLISH
Original: CHINESE, ENGLISH
And RUSSIAN

LETTER DATED 27 JUNE 2002 FROM THE PERMANENT REPRESENTATIVE OF THE PEOPLE'S REPUBLIC OF CHINA AND THE PERMANENT REPRESENTATIVE OF THE RUSSIAN FEDERATION TO THE CONFERENCE ON DISARMAMENT ADDRESSED TO THE SECRETARY-GENERAL OF THE CONFERENCE TRANSMITTING THE CHINESE, ENGLISH AND RUSSIAN TEXTS OF A WORKING PAPER ENTITLED "POSSIBLE ELEMENTS FOR A FUTURE INTERNATIONAL LEGAL AGREEMENT ON THE PREVENTION OF THE DEPLOYMENT OF WEAPONS IN OUTER SPACE, THE THREAT OR USE OF FORCE AGAINST OUTER SPACE OBJECTS"

We have the honour to transmit the Chinese, Russian and English texts of a working paper entitled "Possible Elements for a Future International Legal Agreement on the Prevention of the Deployment of Weapons in Outer Space, The Threat or Use of Force Against Outer Space Objects".

We would be grateful if this document could be issued and circulated as an official document of the Conference on Disarmament.

(Signed:) HU Xiaodi
Ambassador
Head of Delegation of the
People's Republic of China to the
Conference on Disarmament

Leonid A. SKOTNIKOV
Ambassador
Permanent Representative of the
Russian Federation to the
Conference on Disarmament

GE.02-42978

WORKING PAPER
PRESENTED BY THE DELEGATIONS OF CHINA, THE RUSSIAN FEDERATION, VIETNAM, INDONESIA, BELARUS, ZIMBABWE AND SYRIAN ARAB REPUBLIC

Possible Elements for a Future International Legal Agreement on the Prevention of the Deployment of Weapons in Outer Space, the Threat or Use of Force Against Outer Space Objects

I. Possible Name of Such Agreement

Treaty on the Prevention of the Deployment of Weapons in Outer Space, the threat or Use of Force Against Outer Space Objects

II. Preamble

Outer space is the common heritage of mankind and plays an ever-increasing role in its future development.

There exists a potential danger of an armed confrontation and combatant activities being extended to outer space.

The prevention of the deployment of weapons and an arms race in outer space becomes a pressing task facing the international community.

The United Nations General Assembly has adopted a series of resolutions on peaceful use of outer space and prevention of an arms race in outer space, which have provided a prerequisite and basis for the prevention of the deployment of weapons and an arms race in outer space.

The existing agreements on arms control and disarmament relevant to outer space, including those bilateral ones, and the existing legal regimes concerning outer space have played a positive role in the peaceful use of outer space and in regulating outer space activities. These agreements and legal regimes should be strictly complied with. However, they are unable to effectively prevent the deployment of weapons and an arms race in outer space.

For the benefit of mankind, outer space shall be used for peaceful purposes, and it shall never be allowed to become a sphere of military confrontation.

Only a treaty-based prohibition of the deployment of weapons in outer space and the prevention of the threat or use of force against outer space objects can eliminate the emerging threat of an arms race in outer space and ensure the security for outer space assets of all countries which is an essential condition for the maintenance of world peace.

III. Basic Obligations

Not to place in orbit around the Earth any objects carrying any kinds of weapons, not to install such weapons on celestial bodies, or not to station such weapons in outer space in any other manner.

Not to resort to the threat or use of force against outer space objects.

Not to assist or encourage other States, groups of States, international organizations to participate in activities prohibited by this Treaty.

IV. National Measures for the Implementation of the Treaty

Each State Party to the Treaty shall, in accordance with its constitutional process, take any measures necessary to prevent or prohibit any activity contrary to this Treaty on its territory, or in any other place under its jurisdiction or control.

V. The Use of Outer Space for Peaceful and Other Military Purposes

This Treaty shall not be construed as impeding the research and use of outer space for peaceful purposes or other military uses not prohibited by this Treaty.

Each State Party to the Treaty shall carry out activities in outer space in accordance with the general principles of international law and shall not violate the sovereignty and security of other States.

VI. Confidence Building Measures

To enhance mutual trust, each State Party to the Treaty shall promulgate its space programme, declare the locations and scopes of its space launch sites, the property and parameters of objects being launched into outer space, and notify the launching activities.

VII. Settlement of Disputes

If a suspicion arises against any State Party to the Treaty that it is violating the Treaty, the suspecting State Party, or a group of the suspecting State Parties to this Treaty shall conduct consultations and cooperate with the suspected State Party to this Treaty in order to settle down the aroused suspicion. Each suspecting State Party to this Treaty shall have the right to request clarification from the suspected State Party to this Treaty, whereas the suspected State Party to this Treaty shall undertake to provide requested clarifications.

If consultations or clarification fail to settle down the dispute, the suspicion that has aroused shall be referred to the executive organization of the Treaty for consideration together with relevant arguments.

Each State Party to this Treaty shall undertake to cooperate in the settlement of the suspicion that has aroused by the executive organization of the Treaty.

VIII. The Executive Organization of the Treaty

To promote the objectives and implementation of the provisions of this Treaty, the States Parties to the Treaty shall hereby establish the executive organization of the Treaty, which shall:

(a) receive for consideration inquires by any State Party or a group of States Parties to the Treaty related to the suspicion, which has aroused by the violation of this Treaty by any State Party to the Treaty;

(b) consider matters concerning the compliance with the obligations taken by the States Parties to this Treaty;

(c) organize and conduct consultations with the States Parties to the Treaty with a view to settling down the suspicion that has aroused against any State Party to the Treaty concerning its violation of this Treaty;

(d) take necessary measures to end violation of this Treaty by any State Party to the Treaty.

IX. Amendments to the Treaty

Any State Party to this Treaty may propose amendments to the Treaty. The text of any proposed amendment to this Treaty shall be submitted to the Depositary Governments who shall promptly circulate it to all the States Parties to the Treaty. Upon the request of at least one third of the States Parties to the Treaty, the Depositary Governments shall convene a conference to which all the States Parties shall be invited to consider the proposed amendment.

Any amendment to this Treaty must be approved by a majority of the votes of all the States Parties to the Treaty. The amendment shall enter into force for all the States Parties to the Treaty in accordance with the procedures governing the entry into force of this Treaty.

X. Duration of the Treaty and Withdrawal from the Treaty

The Treaty shall be of unlimited duration.

Each State Party to the Treaty shall, in exercising its state sovereignty, have the right to withdraw from this Treaty if it decides that extraordinary events, related to the subject matter of this Treaty, have jeopardized its supreme interests. It shall give notice to the Depository Governments of the decision adopted six months in advance of the withdrawal from the Treaty. Such a notification shall include a statement of the extraordinary events, which the notifying State Party to the Treaty regards as having jeopardized its supreme interests.

XI. Signature and Ratification of the Treaty

This Treaty shall be open for signature by all States at United Nations Headquarters in New York. Any State, which does not sign this Treaty before its entry into force, may accede to it at any time.

The Treaty shall be subject to ratification by signatory States in accordance with their constitutional process. Instruments of ratification or accession shall be deposited with the Depositary Governments.

This Treaty shall be registered by the Depositary Governments pursuant to Article 102 of the Charter of the United Nations.

XII. Entry into Force of the Treaty

This Treaty shall enter into force upon the deposit of instruments of ratification by twenty States, including all Permanent Member States of the United Nations Security Council.

For States whose instruments of ratification or accession are deposited after the entry into force of this Treaty, it shall enter into force on the date of the deposit of their instruments of ratification or accession.

XIII. Authentic texts of the Treaty

This Treaty, of which the Arabic, Chinese, English, French, Russian and Spanish texts are equally authentic, shall be deposited in the archives of the Depositary Governments, who shall send duly certified copies thereof to all the signatory and acceding States.

CONFERENCE ON DISARMAMENT

CD/1680
10 July 2002

Original : ENGLISH

LETTER DATED 26 JUNE 2002 FROM THE PERMANENT REPRESENTATIVE OF THE UNITED STATES OF AMERICA TO THE CONFERENCE ON DISARMAMENT ADDRESSED TO THE SECRETARY-GENERAL OF THE CONFERENCE TRANSMITTING THE TEXT OF HIS REMARKS ON OUTER SPACE DURING THE INFORMAL CONFERENCE ON "FUTURE SECURITY IN SPACE: COMMERCIAL, MILITARY, AND ARMS CONTROL TRADE-OFFS" SPONSORED BY THE MONTEREY INSTITUTE'S CENTER FOR NONPROLIFERATION STUDIES AND THE UNIVERSITY OF SOUTHAMPTON'S MOUNTBATTEN CENTER ON 29 MAY 2002

I recently had the honour to participate in an informal conference in England to discuss the topic, "Future Security in Space: Commercial, Military, and Arms Control Trade-offs". This highly informative gathering was sponsored by the Monterey Institute's Center for Nonproliferation Studies and the University of Southampton's Mountbatten Center.

My remarks during the informal conference may be of interest to colleagues here in Geneva. I therefore request that the statement I gave on May 29 be distributed as a CD document.

(Signed:) Eric M. Javits
Permanent Representative to the
Conference on Disarmament

GE. *200206286 9*
ENG

The U.S., Outer Space, and the CD

The United States continues to recognize the common interest of all countries in the exploration and use of outer space for peaceful purposes, as declared in the 1967 Outer Space Treaty. When our astronauts walked on the moon for the first time, they left the message that they "came in peace for all mankind." The United States and other nations have sent unmanned probes to explore outer space and the celestial bodies, to explore the surfaces and atmospheres of the other planets in our solar system in order to understand the environment beyond our world.

The exploration and use of space has not looked solely outward. Satellites orbiting the Earth monitor the weather, the climate, the growth of crops, and the impact of drought and land use. Communications satellites make possible rapid global sharing of information. Satellites have revolutionized terrestrial navigation and provided a new and powerful tool for accurate surveying of the Earth's surface. The peaceful exploration and use of outer space have also resulted in technological spin-offs that would take days to enumerate in their entirety.

The commitment of the United States to the exploration and use of outer space by all nations, for peaceful purposes and for the benefit of humanity, is clear. But the peaceful exploration and use of space obviously does not rule out activities in pursuit of national security goals.

The security and well being of many nations depend on the ability to operate in space, and Article 51 of the UN Charter makes it clear that all Member States have the inherent right of individual and collective self-defense. The global responsibilities of

the United States, and the new threats facing it in today's world, require that that right be exercised both on the Earth and above it. As Under Secretary Bolton told the Conference on Disarmament in his January 24 statement, the security and well being of the United States and its allies depend on the ability to operate in space. And we are not alone in having military space programs. Russia and China, for example, have such programs, too.

National security is the highest responsibility of a government, and each nation must decide on the elements of its security policy. Arms control and disarmament are not ends in themselves but tools to enhance security. Our discussion should be framed in that context.

Free access to space and use of space by space-faring nations are central to the preservation of peace and the protection of civil, commercial and security interests. The United States sees no justification for limitations on the right of sovereign nations to acquire all forms of information from space.

We fully understand that maintaining international peace and security is an overarching purpose that guides activities on earth as well as in outer space, but in the final analysis preserving national security is likewise necessary and essential. For these reasons, the United States sees no need for new outer space arms control agreements and opposes negotiation of a treaty on outer space arms control.

Some suggest that a new forum might be the appropriate place for outer space arms control efforts. We do not share this view. Changing venues would not change national positions. States would still have the same concerns that they have in existing fora.

The Existing Outer Space Regime Is Sufficient

A number of standing agreements already sufficiently regulate military activities in outer space. The Limited Test Ban Treaty of 1963 prohibits parties from conducting nuclear weapon test explosions or other nuclear explosions in outer space. The activities of the Committee on the Peaceful Uses of Outer Space, which facilitated the negotiation of the Outer Space Treaty itself, also reinforce the existing regime. The Committee on Peaceful Uses does not deal with disarmament and arms control aspects of outer space, of course; but it is concerned with promoting international cooperation in the peaceful uses of space.

Most important, however, is the Outer Space Treaty, to which the United States remains firmly committed. The Outer Space Treaty puts celestial bodies off limits to all nuclear weapons or other weapons of mass destruction and prohibits States Parties from placing in orbit or stationing such weapons in outer space — a far-reaching nonproliferation measure in itself. It also provides that celestial bodies shall be used exclusively for peaceful purposes and prohibits their use for military establishments or maneuvers, or for testing any type of weapons. In addition, the Outer Space Treaty

clearly establishes that States Parties retain jurisdiction and control over objects they have launched into outer space, and have international responsibility for national objects in outer space, including whatever damage the launched item may cause.

In sum, there already exists an extensive and comprehensive system for limiting the uses of outer space to those that are peaceful and providing a framework for the legitimate military uses of outer space. We believe that this existing multilateral arms control regime adequately protects states' interests in outer space and does not require augmentation. There simply is no problem in outer space for arms control to solve. The problems we all need to address are right here on earth — the need for effective implementation of, and full compliance with, key regimes that tackle the very real threat of weapons of mass destruction — above all the Nuclear Nonproliferation Treaty, Chemical Weapons Convention, and Biological Weapons Convention.

The United States is committed, through its national space policy, to ensuring that exploration and use of outer space remain open to all nations for peaceful purposes and for the benefit of all humanity. For us as for others, "peaceful purposes" does of course allow for activities that support and serve national security goals. Improving our ability to support military operations worldwide, monitor and respond to military threats, and monitor arms control and non-proliferation agreements are key priorities for our national security space activities — and they help strengthen international stability and security. The lawful military use of space provides broad benefits to the international community in the areas of communications, global positioning, navigation, environmental monitoring, combating terrorism, and cooperating in enforcement of UN Security Council sanctions.

Time to Move On

The United States continues to hear calls for immediate negotiations in the CD to forestall all manner of ills: (1) the possibility that missile defense would upset strategic stability, leading to a new arms race here on earth; (2) the potential for disruption of the arms control process; and (3) the risk of an arms race in outer space. The United States has always believed these concerns are groundless.

Clearly, missile defense has not upset strategic stability or led to a new arms race. The Treaty signed in Moscow on May 24 shows that. Importantly, the Treaty of Moscow also demonstrates that pursuit of missile defense and the demise of the ABM Treaty are not an impediment to further reductions in nuclear weapons or to increased U.S.-Russian cooperation. Clearly also, U.S. missile defense efforts, and the various systems under development, are not directed against Russia or China. Rather, they are designed to defend against limited ballistic missile attack in a world where increasing numbers of states are striving to be able to threaten such an attack. Finally, as we have tried to make clear, it is not a replacement for deterrence through response or retaliation, but a supplement to it — adding a new dimension to deterrence. Indeed, if a non-state actor knew that a limited attack on the United States was not likely to

succeed, they would be much less inclined to develop weapons of mass destruction. A system capable of defending against a large-scale attack with sophisticated weapons would be both qualitatively and quantitatively different from that which the United States is pursuing.

The United States remains committed to the arms control and disarmament process. The landmark strategic arms reductions agreement signed by Presidents Bush and Putin in Moscow on May 24 has reaffirmed that commitment and finally laid to rest the Cold War world and the arms race it spawned. There is no contradiction between that process and pursuit of a limited MD system. And while the United States and Russia have had different views on the merits of the ABM Treaty, its disappearance is simply not a problem. The reality is that U.S.-Russian relations are broad and strong enough to weather this sort of disagreement. As the Moscow Summit showed, it is a new and better day.

Summation

The United States continues to recognize the common interest of all mankind in the furtherance of the exploration and use of outer space for peaceful purposes, as declared in the 1967 Outer Space Treaty. We see no need for further outer space treaties. We should move on to other themes that address immediate and serious threats to mankind.

CONFERENCE ON DISARMAMENT

CD/1682
30 August 2002

ENGLISH
Original: CHINESE and ENGLISH

LETTER DATED 28 AUGUST 2002 FROM THE PERMANENT REPRESENTATIVE OF THE PEOPLE'S REPUBLIC OF CHINA TO THE CONFERENCE ON DISARMAMENT ADDRESSED TO THE SECRETARY-GENERAL OF THE CONFERENCE TRANSMITTING THE CHINESE AND ENGLISH TEXTS OF A DOCUMENT ENTITLED "DRAFT DECISION ON THE ESTABLISHMENT OF AN AD HOC COMMITTEE ON THE PREVENTION OF AN ARMS RACE IN OUTER SPACE AND ITS MANDATE"

I have the honour to forward herewith the Chinese and English texts of a document entitled "Draft decision on the establishment of an ad hoc committee on the prevention of an arms race in outer space and its mandate".

I would be grateful if this document could be issued and circulated as an official document of the Conference on Disarmament.

(Signed:) HU Xiaodi
Ambassador
Head of Delegation of the
People's Republic of China to the
Conference on Disarmament

GE.02-63719

The Chinese Delegation

Draft decision on the establishment of an ad hoc committee on the prevention of an arms race in outer space and its mandate

The Conference takes the following decisions:

...

The Conference establishes, for the duration of the current session, an Ad Hoc Committee under agenda item 3 entitled "prevention of an arms race in outer space" to deal with the prevention of an arms race in outer space. The Ad Hoc Committee shall examine and identify specific topics or proposals, which could include confidence-building or transparency measures, general principles, treaty commitments and the elaboration of a regime capable of preventing an arms race in outer space, with a view to negotiating relevant international legal instrument.

The Ad Hoc Committee shall take into consideration all relevant views and proposals present and future and also address questions related to its mandate.

The Ad Hoc Committee shall present a report to the Conference on Disarmament on the progress of its work before the conclusion of the current session.

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CONFERENCE ON DISARMAMENT

CD/1682/Corr.1
10 October 2002

Original: ENGLISH

LETTER DATED 28 AUGUST 2002 FROM THE HEAD OF DELEGATION OF THE PEOPLE'S REPUBLIC OF CHINA TO THE CONFERENCE ON DISARMAMENT ADDRESSED TO THE SECRETARY-GENERAL OF THE CONFERENCE TRANSMITTING THE CHINESE AND ENGLISH TEXTS OF A DOCUMENT ENTITLED "DRAFT DECISION ON THE ESTABLISHMENT OF AN AD HOC COMMITTEE ON THE PREVENTION OF AN ARMS RACE IN OUTER SPACE AND ITS MANDATE"

Corrigendum

For PERMANENT REPRESENTATIVE read HEAD OF DELEGATION

GE.02-64461

CONFERENCE ON DISARMAMENT

CD/1687
8 October 2002

ENGLISH
Original: RUSSIAN

LETTER DATED 4 OCTOBER 2002 FROM THE PERMANENT REPRESENTATIVE OF THE RUSSIAN FEDERATION TO THE CONFERENCE ON DISARMAMENT ADDRESSED TO THE SECRETARY-GENERAL OF THE CONFERENCE TRANSMITTING THE TEXT OF THE RESPONSE BY THE MINISTER FOR FOREIGN AFFAIRS OF THE RUSSIAN FEDERATION, IGOR IVANOV, TO A QUESTION FROM THE RUSSIAN MEDIA REGARDING THE PREVENTION OF THE DEPLOYMENT OF WEAPONS IN OUTER SPACE

I have the honour to forward herewith the text of a statement by the Minister for Foreign Affairs of the Russian Federation, Igor Ivanov, in response to a question put to him on 2 October 2002 by the Russian media regarding the prevention of the deployment of weapons in outer space.

I would be grateful if this statement could be issued as an official document of the Conference on Disarmament and distributed to the delegations of all member States of the Conference and non-member States participating in its work.

(Signed): Leonid SKOTNIKOV
Ambassador
Permanent Representative of the
Russian Federation to the
Conference on Disarmament

GE.02-64442 (E) 141002 141002

Statement by the Minister for Foreign Affairs of the Russian Federation, Igor Ivanov, in response to a question put by the Russian media regarding the prevention of the deployment of weapons in outer space

Question: In your statement to the General Assembly at its fifty-seventh session, you returned yet again to the issue of preventing the deployment of weapons in outer space and mentioned a proposal to develop a comprehensive agreement designed to preserve outer space as a zone free from any kind of weapon. Could you give us some more details about Russia's approach to this issue? Are there any new elements in the Russian position on this?

Response: Russia, as everyone knows, has always campaigned for outer space to be kept peaceful and for talks to be commenced, as soon as possible, on preventing the deployment of weapons in outer space. Over the last few years we have come up with a number of focused initiatives designed to prevent outer space being turned into an arena of armed confrontation.

Thus, in his statement at the Millennium Summit in New York in September 2000, the Russian President, Vladimir Putin, offered to host an international conference in Moscow in spring 2001, under the auspices of the United Nations, on preventing the militarization of outer space, timed to mark the fortieth anniversary of the first manned flight into outer space. That conference, organized with the two-fold aim of studying ways of preventing the deployment of weapons in outer space and of exploring prospects for the peaceful use of space, was held from 11 to 14 April 2001 under the slogan: "Space without weapons: an arena for peaceful cooperation in the twenty-first century". Some 1,300 delegates from 105 different countries attended the conference.

In our statement to the General Assembly at its fifty-sixth session, on 24 September 2001, we suggested that work begin on the preparation of a comprehensive agreement on the non-deployment of weapons in outer space and on the non-use or threat of force against space objects and we also sketched out specific obligations that could underpin such an agreement. We also put forward the idea of placing a moratorium on deploying weapons in outer space, pending a relevant international agreement.

I would also like to recall that the Russian initiatives announced in 2001, at the fifty-sixth session of the United Nations General Assembly, were embodied in the Russian-Chinese working paper on possible elements for a future international legal agreement on the prevention of the deployment of weapons in outer space, which was circulated in 2002 as a document of the Conference on Disarmament.

Russia believes that an agreement of this kind will help ensure that peaceful activities can be effectively conducted in outer space and that multilateral cooperation can be expanded in

this area, in conformity with international law, and that it will help strengthen the international legal regime for the protection of present and future space objects on the basis of the principle enshrined in the United Nations Charter of the non-use of force or the threat of force in international relations.

We are also prepared to accept a new mechanism to ensure openness and to build confidence in the domain of outer space: the advance notification of planned launches of space objects, their purpose and their basic parameters.

2 October 2002

CONFERENCE ON DISARMAMENT

CD/1710
26 June 2003

Original: RUSSIAN

LETTER DATED 11 JUNE 2003 FROM THE PERMANENT REPRESENTATIVE OF THE RUSSIAN FEDERATION TO THE CONFERENCE ON DISARMAMENT ADDRESSED TO THE SECRETARY-GENERAL OF THE CONFERENCE NOTIFYING ON THE DEVELOPMENT OF AN INITIATIVE TO PROMOTE OPENNESS AND TO BUILD CONFIDENCE IN THE DOMAIN OF OUTER SPACE ACTIVITIES

I have the honour to notify you of the development of an initiative by Russia to promote openness and to build confidence in the domain of outer space activities, so as to ensure transparency in the use of outer space and to prevent the deployment in space of weapons of any type. The basic thrust of this proposal, which was put forward in October 2002 by Mr. Igor Ivanov, Minister for Foreign Affairs of the Russian Federation, is to show Russia's willingness to provide advance notification of forthcoming spacecraft launches and of their purpose and main parameters.

After the necessary preparations, work has now started on the implementation of this initiative. The relevant details of forthcoming spacecraft launches, provided by the Ministry of Defence of the Russian Federation and the Russian Aerospace Agency, will be posted ahead of such launches on the official internet site of the Russian Ministry of Foreign Affairs, at the address www.mid.ru. In the disarmament section of this site there is a special subsection containing information on forthcoming spacecraft launches in the Russian Federation. The address of the English version of this subsection is www.ln.mid.ru/ns-dvbr.nsf/engdvzaprkt.

The Russian Federation calls on the other space Powers which have their own spacecraft launching facilities to join its initiative. By doing so they will help build confidence in the domain of outer space activities and set the stage for further joint efforts to reinforce the peaceful status of outer space.

We regard the task of preventing the deployment of weapons in outer space as a priority and favour the earliest possible commencement of work on this issue in the Conference on Disarmament.

I would be grateful if this notification could be issued as an official document of the Conference on Disarmament and distributed to the delegations of all member States of the Conference and non-member States participating in its work.

(*Signed*): Leonid Skotnikov
Ambassador
Permanent Representative of the Russian Federation to the
to the Conference on Disarmament

Annex

Schedule of Spacecraft Launches for June 2003

According to the Russian Aerospace Agency, the following launches of spacecraft (SC) are scheduled for June 2003 under the federal programs of Russia, international cooperation programs and commercial programs:

Date	Cosmodrome	Craft/object to be launched	Carrier rocket	Goal	Notes
June 2, 2003 21:45:26 Moscow time	Baikonur	Mars Express SC	Soyuz with a Fregat upper stage	Carrying out scientific research	Placing the SC on a Mars-bound trajectory
June 7, 2003	Baikonur	AMC 9 (ЖЕ-12) telecommunications satellite	Proton with a Briz-M upper stage	Commercial launch	Previously scheduled for May 20 but had to be canceled for technical reasons
June 8, 2003 14:34:17 Moscow time	Baikonur	Progress M1-259 cargo spacecraft	Soyuz	Ensuring the operation of the ISS; delivering to it fuel components, expendable equipment, equipment for scientific experiments and containers with food and other cargo	Orbit features: period of reversal - 88,59 minutes inclination - 51,66 degrees min.altitude - 193 km max.altitude - 245 km
June 30, 2003	Plesetsk	Bridge and Mimoza SC, and Monitor-E space complex model	Rokot	Carrying out space research	6 foreign nanosatellites of varying purpose are planned to be orbited as an associated payload

CONFERENCE ON DISARMAMENT

CD/1753*
8 July 2005

Original: ENGLISH

LETTER DATED 29 JUNE 2005 FROM THE PERMANENT REPRESENTATIVE OF THE RUSSIAN FEDERATION AND THE PERMANENT REPRESENTATIVE OF CHINA TO THE CONFERENCE ON DISARMAMENT ADDRESSED TO THE SECRETARY-GENERAL OF THE CONFERENCE TRANSMITTING THE TEXT OF THE REPORT OF THE INTERNATIONAL CONFERENCE ON "SAFEGUARDING SPACE SECURITY: PREVENTION OF AN ARMS RACE IN OUTER SPACE" HELD FROM 21 TO 22 MARCH 2005 IN GENEVA

We have the honor to forward to you herewith the Report of the International Conference on "Safeguarding Space Security: Prevention of an Arms Race in Outer Space".

The Conference was held on 21-22 March, 2005 and was jointly hosted by the Government of the People's Republic of China, the Government of the Russian Federation, the United Nations Institute for Disarmament Research and the Simons Center for Disarmament and Non-Proliferation Research.

We would be grateful if this letter as well as the Report could be issued as an official document of the Conference on Disarmament, and distributed to all Member States of the Conference on Disarmament and Observer States participating in its work.

(Signed:) HU Xiaodi
Ambassador for Disarmament Affairs
Head of Delegation of the
People's Republic of China to the
Conference on Disarmament

(Signed:) Leonid SKOTNIKOV
Ambassador
Permanent Representative of the
Russian Federation to the
Conference on Disarmament

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* / Re-issued for technical reasons.

Safeguarding Space Security: Prevention of an Arms Race in Outer Space

Geneva 21-22 March 2005

CONFERENCE REPORT

Co-organised by:
The Government of the People's Republic of China
The Government of the Russian Federation
The United Nations Institute for Disarmament Research (UNIDIR)
The Simons Centre for Disarmament and Non-Proliferation Research

Introduction

Space-based technologies play an increasingly critical role in the maintenance and development of national and international infrastructures. With the benefits of the widespread application of peaceful outer space technology, comes the urgent need for the international community to understand, communicate and cooperatively regulate activities in the outer space. Potential dangers such as the dissemination of dual-use technologies, the shift from the militarization of space to the weaponization of space, and the growing problem of space debris are threatening to undermine security in outer space as well as prospects for its peaceful use by humanity as a whole.

More than 130 States have interests at stake either as space-faring nations or indirectly benefiting from the use of commercial satellites. There is an international consensus on the general principle of 'the importance and urgency of preventing an arms race in outer space', as shown by the regular adoption by the UN General Assembly, without any negative vote, of a number of resolutions since 1990. However, there has been a lack of political and diplomatic action, whereas existing frameworks such as the 1967 Outer Space Treaty and the 1979 Moon Agreement are insufficient for dealing with the challenges that we now foresee.

Understanding the political, legal and technical constraints and assessing avenues for progress are essential to building an international regime capable of effectively and comprehensively dealing with issues concerning space security. It is in light of this urgent need for research and communication that the United Nations Institute for Disarmament Research has held a series of conferences.

The conference on 'Safeguarding Space Security: Prevention of an Arms Race in Outer Space' was held on 21-22 March 2005, and is jointly hosted by the Governments of the People's Republic of China and the Russian Federation, the United Nations Institute for Disarmament Research (UNIDIR), and the Simons Centre for Disarmament and Non-Proliferation Research.

The conference was financially supported by the Government of the People's Republic of China and the Simons Foundation.

Representatives from Member States and Observer States of the Conference on Disarmament, experts and scholars from Canada, China, the Russian Federation, Germany, the United States, the United Kingdom and other countries, totalling more than one hundred people, participated in the Conference.

Session One: The new space age: weapons, developments and challenges to space security

Session one provided insights into the current trends in the development of space technology and how these affect both international cooperation and space security. International cooperation should be the highest priority of the international community today. The twenty-first century will require the world community to undertake systemic research with the assistance of space-based technologies. One avenue for collaboration would be to work towards the creation of an international outer space agency and to cooperatively conduct large-scale resource-intensive outer space research projects within the framework of the United Nations.

The costs and harm associated with an ill-regulated environment for space activities were exemplified in an analysis of the 'qualitative changes' in conditions in near space. The increasing volume of objects launched for military purposes — such as small satellites and new super-small assets — are threatening to over-populate near space orbits and lead to reduced visibility. The development and dissemination of small size and cheap strike systems, capable of creating small pockets of orbital debris that would deny other parties access to space, if unmonitored, could lead to a new arms race. It could also make space activities more costly by requiring the enhanced protection of satellites. Concern over the 'technical littering' of space and the problem posed by space debris was expressed. In order to meaningfully address these matters, the international community needs to develop a legal regime that builds upon initiatives such as the declaration by the Russian Federation of non-first placement of weapons in space and the joint Chinese-Russian proposal to the Conference on Disarmament (CD 1679) of possible future international legal agreement.

The effects of orbital debris on space security and the urgent need for action were a major focus. Debris are threatening to degrade the already fragile space environment and may render space unfit for human endeavours. The amount of existing debris is considered to far exceed that currently identified by NASA (at 13,000 large pieces), especially at the most heavily used Lower Earth Orbit. Debris will cyclically collide with each other and thus create more remains that effectively form a lethal shell around the earth. Despite the widespread acknowledgement of the danger of orbital debris, Aldworth emphasized that the problem has not deserved sufficient attention. Efforts such as the proposal to set working guidelines in dealing with space debris at the United Nations by June 2007 are considered vital. He further warned against the placement of non-offensive weapons around satellites or non-debris producing weapons — as these weapons themselves could be targeted by parties using low-cost, low-technology weapons that create fields of debris and destroying the other more technologically advanced weapons. An international legal regime should aim to ban the placement of any weapon in space.

Laura Grego, of the Union of Concerned Scientists, presented the findings from a study that examined the technical realities of the four new space projects proposed by the United States military. One project, foresees using space-based assets to attack ground targets, however this project will find it difficult to gather support, as it competes against much less expensive ground-based alternatives. The second project, that comprises space-based ballistic missile defences, requires a very large-scale constellation of assets in space to be effective. According to Grego, such constellations are inherently vulnerable to attack, for the whole system can be subdued once an attack on a single point succeeds. A third project attempts to use space-based weapons to defend satellites from attacks. However, as Grego points out, this third project suffers from the same flaw as the second one. Therefore, making satellites more robust may prove a more reliable option. According to the study, the only advantage to be found in the space basing of weapons is in the attack of other satellites. Placement of anti-satellite (ASAT) weapons is predicted to be among the initial moves that would put weapons in space. Grego concluded with a note on the countries that are best able to do so have also the most interest in ensuring safe use of space.

During the discussions that followed, strong support was expressed for the work of this conference and the principle against the placement of any weapons in outer space and starting work on an international agreement on PAROS at the CD, including the establishment of an Ad Hoc Committee to work without limitation on any issue concerned with outer space security. The central role of the CD as the single multilateral forum for discussions over this issue was reaffirmed, and it was suggested that the Chinese-Russian proposed working paper CD/1679 could serve as the basis for further substantive discussions.

The problem of space debris brought about varying reactions from the participants. On the one hand, there is a need for more expert research into the issue and the publication of these studies, while on the other hand there were doubts voiced over the extent of the seriousness of the issue, accompanied by requests for quantitative evidence of accidents caused by debris.

Session Two: The Relevance and Urgency of Preventing the Weaponization of and an Arms Race in Outer Space

The consequences of placing weapons in space on the current international order and on space-based human activities are seen as damaging. Since space systems are meant to function autonomously, any technical failure may seriously damage the normal functioning of human activities—and should these systems involve space weapons, the situation may spin out of control and lead to irreversible consequences for human kind. Apart from the debris problem, in the course of placing weapons in space, orbital groups of spacecrafts limit the accessibility of others, thus challenging the nature of space as an unlimited natural resource for all mankind. It was proposed that the UN discuss the issue of jurisdiction in space, taking into account the interests of developing countries. The effect of placing weapons in space on the international strategic status quo could also be destabilizing. Where any country to deploy weapon in space, this would have strategic implications, as the unilateral advantage could invite retaliatory measures from others. This could lead to arms competition in outer space, and to the proliferation of other weapons, whether nuclear or other weapons of mass destruction (WMD). This could bring existing arms control and disarmament efforts to naught and, some fear, bring the international order back to the time of the Cold War.

Science and technology could be regarded as a 'double-edged sword', particularly given the current loopholes in existing international regimes. Due to the emerging new military concepts and theories such as "control of space" and "occupation of space" as well as the research and development of space weapons programs, the growing benefits derived by communities worldwide from space technologies would be harmed. The UNGA has adopted a series of treaties with regard to space security, but they have in common the following four loopholes: they concern exclusively the prevention of testing, deploying and using of weapons of mass destruction in outer space; they neglect the issue of the threat or use of force from earth towards space; they did not fill the gap left by the end of the ABM Treaty; and they lack a provision for universality.

The US policies towards space security have been at the centre of international controversies in many respects. Jeffrey Lewis from the University of Maryland provided his assessment of the extent of seriousness of the perceived American commitment to developing space weapons. Within the two broad categories of the US official policies—the defensive Space Control Project which includes surveillance, denial of access to space to others and defence satellites, and the Space Force Project that is more offensive in nature—Lewis found the latter is yet constrained by its limited funding and the lack of commitment from the Defense Department as well as Congress. Projects such as the space-based ballistic missile defence system, contrary to their much-deserved international attention, are neither obtaining the necessary funding nor are they being pushed forward by the Defense Department for fear of potential public opposition. Listing several other controversial projects, such as an offensive counter-communication system and a space test bed for ASAT weapons, Lewis concluded that they are either being cancelled, delayed or the result of a purely idiosyncratic pursuit by certain individuals within the defence system. Instead, Lewis suggests that programmes that are more deeply embedded within the budget, such as the large amounts dedicated to building capacity in space surveillance sensors with potential ASAT capabilities, will be the eventual indicators of US policy towards weaponization of outer space. The degree of urgency on this matter is measured in years not months.

David Wright from the Union of Concerned Scientists examined the driving force behind the US interest in ASATs and space weapons, and expressed his hope in diplomatic efforts since, in his view, the placement of weapons in space does not ensure against the vulnerability of satellites. The most commonly discussed motivation for weaponizing space within the United States, i.e., to protect vulnerable US space assets, is unfounded in Wright's view. There is no evidence that US assets are susceptible to a 'space Pearl Harbor' scenario of debilitating attack and, referring to Grego's speech, ASATs and other space weapons are neither the effective answer nor the only solution to reducing such vulnerabilities. The real driving force behind the push for space weaponization lies in the intention to ensure US space superiority through offensive ASAT capabilities and space-based missile defence interceptors. To this end, Wright asserts that deploying ASATs or space weapons first does not translate into a lasting advantage, as the monopoly on these weapons will not hold. Neither should this desire be driving national policy, nor should other countries feel compelled to follow suit. There exists a window of opportunity for diplomatic efforts, especially among space-faring nations to assure each other of their peaceful intentions, particularly through unilateral declarations not to be the first to place weapons in outer space, such as the declaration made by the Russian Federation.

Following the presentations, the participants exchanged views over:

- What should be States' response to a situation where one country initiates the placement of weapons in space?
- The verification aspect of a treaty on PAROS.
- The concept of 'deterrence' in reference to security in outer space.

On the first point, some suggested that States should take time and deliberate their response. Given the complexity of space affairs, the specifics of each scenario must be judged with patience, caution and in coordination with one another. One view was that the US is still far from being able to put weapons in space and that certain activities are rather designed for intimidation purposes. Other voices asserted the importance of prohibiting the placement of weapons in space as a matter of principle. However, should it occur, immediate international efforts should be undertaken to rollback the placement of weapons in space.

Some participants emphasized that outer space security involves many uncertainties and 'murky' situations, such as flight tests that in some circumstances can indicate that space weapons testing is taking place. This also applies to the means developed to verify compliance with a prospective PAROS agreement, since inspector satellites could also have ASAT capabilities. The participants thereby encouraged the international community to think in less black and white terms. And, in an analogy with the Comprehensive Test Ban Treaty, they expressed the hope that efforts to build an international legal framework to safeguard space security should not be deterred by the inherent technical difficulties of verification. The apparent inability of the CD to move forward and achieve substantial progress on PAROS was also addressed. However, many continued to affirm the central role of the CD and advocate both unilateral declarations and collective diplomatic efforts by all States.

When the concept of nuclear deterrence was brought in the discussion with reference to its potential applicability to outer space, it was strongly asserted that there is no ground to make such a comparison. While nuclear deterrence is meant to prevent nuclear attacks between nuclear weapons States, the only country with the capability to implement such an attack in or from or within outer space would be the US. It would seem extremely unlikely that the US would envisage such an attack and therefore seek first-deployment in space, for such a course of action would prompt others to deploy weapons in space and thus potentially launch an arms race in outer space.

The discussions also brought about greater insight into the concepts of 'militarization' and 'weaponization' of outer space. While outer space has been used for surveillance and information-gathering for military purposes, one participant expressed that the term 'militarization' should not be taken for granted, as it also denotes a state of confrontation, and should be applied with more discretion in reference to outer space.

Session Three: Elements of National/Multilateral Political, Legal or Legislative Instruments to Regulating Weapons in Space

In lieu of the division between the two prevailing schools of thought, one advocating the prohibition of any weapons in outer space and the other advocating prohibition of offensive weapons, an approach that aims for 'a comprehensive global cooperative security order' was suggested. The proposed Treaty on Common/Cooperative Security in Outer Space (CSO) puts at its heart the clauses of 'mankind' and the 'peaceful uses' of space, that are stipulated in the 1967 Outer Space Treaty (OST) and were recognized by the UNGA (as early as resolution 1148 in 1957) by consensus from the then superpowers, and the concept of 'common security' that denotes security achieved through cooperation. As research illustrates, in encompassing these clauses and norms, the effort to ensure space security could complement other arms control and disarmament regimes and move security configurations away from 'mutually assured destruction' (security by deterrence) to 'mutually assured security'.

Given the de facto acceptance of passive military uses of outer space (e.g., reconnaissance satellites), the significance of the 'peaceful uses' of space clause was underlined. A three-step proposal was made to formalize and achieve a legal status for the principle of 'peaceful uses' of outer space. First, the General Assembly should vote a resolution reaffirming the principle; second, the General Assembly should request the International Court of Justice for an authoritative definition of the clause on 'peaceful uses'; and third, to open working groups at the General Assembly to discuss the opening of negotiations on a CSO.

Sarah Estabrooks, from Project Ploughshares Canada, presented a survey of the new developments and trends in activities related to space security in 2004. As a widely used term, 'space security' is defined in terms of the 'secure and sustainable access to and use of space' and 'freedom from space-based threats'. Overall, the survey found that access to space for civil and commercial purposes is increasing; that military-commercial interdependence is rising as are terrestrial military operations' reliance on space-based assets; that the US continues to dominate in the application of space-based assets for military purposes and in developing space assets protection and negation capabilities; and that there continues to be a deadlock in international discussions over PAROS. Estabrooks stated that the issue of space weaponization cannot be dealt with independently from other activities in space as they are interlinked. Thus, the division of work currently existing within the multilateral forum (i.e., UNGA, COPUOS, CD, ITU) needs to be corrected.

The possible solutions to the deadlock in international discussions over PAROS that has prevailed since the mid-1990s were examined. Given the complexity involved in determining the nature of space weapons systems and behaviours, a solution would be to apply different legal norms to different situations. Prohibitive, restrictive and permissive measures could be implemented whether the system or behaviour in question resembles a space weapon or simply a harmful force against other space objects. There are two ways to institutionalise these measures into a legal instrument: the comprehensive and the partial approach. While comprehensively banning all space weapons, from their R&D to their deployment and use is desirable, this does not constitute a realistic common ground between countries for breaking the current deadlock and moving negotiations forward. The partial ban on behaviour approach—that is to say banning the deployment of weapons and the use of force in space—could be more realistic.

After having suggested that participants take a broad and comprehensive view when looking at space security, Nancy Gallagher, from the University of Maryland, reflected on a variety of elements that conditioned the apparent shift in the US military doctrine. The US initiative in setting an international code of conduct and of norms against the weaponization of space came in the context of the Cold War thinking on strategic balance and at a time when space science and technologies were still at their infancy. Today's military doctrine under the Bush administration calls for 'coercive prevention'. It has emerged against the background of greater US space capability superiority, wider application of space-based assets and the development of a commercial space industry. Taken together these elements create more incentives for securing space dominance and defending national self-interests. However, Gallagher suggested that such contradictory thinking to the OST has not yet translated into official policy and is likely to face public objection within the US. In conclusion, Gallagher pointed to the need for consolidating the principles and norms of the OST, and raised several concrete points for further exploration: how to define 'non-destructive' space weapons and 'legitimate' military activities; how to set a range on the relationship between 'transparency' and 'control' over military issues that creates favourable conditions for countries to open discussions; what is understood by 'stabilizing' strategic implications in today's environment; and what are the next steps in missile defence now that the ABM Treaty no longer exists.

The participants engaged in substantive discussions over several points raised in the presentations.

- The linkage between efforts on PAROS and other international arms control and disarmament regimes was received positively by many. One participant considered the 2005 NPT Review Conference as an opportunity to make the NPT norms more relevant and contribute to reducing the motivation for placing weapons in outer space. Weaponization of outer space, as one participant expressed, is a form of vertical proliferation. Moreover, it was added that the US proactive posture against proliferation of WMD on earth should constitute the very reason for their not placing weapons in outer space in the first place.
- Views were divided on the issue of whether or not to amend the 1967 OST to extend the ban to cover all weapons. While such a proposal was discussed in official forums, some participants insisted that more might be lost than gained in opening up the OST for amendment.
- On the issue of verification, some suggested that while the issue is being understandably side-stepped in the light of the realities of international negotiations, it should not go without mentioning that, should there be a weapons ban or immunity regime for civil/peaceful space assets, a multilateral verification regime should be put in place.

In response to questions over the point of establishing an alternative forum for work on PAROS, given the continued deadlock at the CD, an alternative forum was proposed to be established under the General Assembly in the form of an open-ended working group. Such a structure would also serve to correct loopholes in existing regimes, such as overlooking weapons other than WMD.

Session Four: Space Surveillance, Monitoring and Compliance for International Instruments

Michael Krepon from the Stimson Center remarked that there still is no general consensus on international instruments giving complete guarantee for real space surveillance and monitoring. Krepon argued that the Code of Conduct Against Ballistic Missile Proliferation (2002), the Proliferation Security Initiative (2003) and the European Code of Conduct for Space Debris Mitigation (2004) are precedents that show that the advances made on space surveillance and monitoring have set general principles, reaching modest commitments and limited confidence-building that do not represent real and effective surveillance and monitoring.

Achieving real surveillance and monitoring is possible if a Code of Conduct for Space were to be established. Taking into account the rules that already exist (the OST, Astronaut Agreement, Liability Convention, Registration Convention, ITU), their gaps and introducing key provisions (no simulated attacks, no dangerous manoeuvres, no harmful use of lasers, mitigation of space debris, space weapon restrictions), it should be possible to devise a code of conduct that prevents the misuse of space assets and grants space security for all through surveillance and monitoring. This requires, besides a great deal of work by experts, a set of reassurance measures (cooperative monitoring, transparency, registration, notification, traffic management, no commercial interference) based on effective verification. Within this framework, governments must set up national programmes for verification and prevention of weaponization of space.

The importance of a verification regime for an international agreement on PAROS was highlighted and the specific practical elements of verification were examined. Efforts on PAROS, such as the Russian-Chinese joint proposal to the CD, are in essence prohibitive measures. To that end, verification would be the essential element to an international agreement. On-site inspections including a permanent base for inspection at space stations was suggested as an option for verification. This could be a cheap option, predictable and technically feasible, unlike ground-to-space surveillance and verification systems or the use of special satellite for inspections. Nevertheless, while the objective of verification is easily judged, it is practically a difficult task to define the 'object of verification', in this case to define 'space weapons' and 'threat or use of force towards space objects'. Not all provisions of a treaty can be reflected in the verification context and not all international legal instruments require a verification regime. Verification of compliance with PAROS could be achieved under a separate protocol, but will require a further assessment of the political, financial and technical context on which the agreement is based. Notwithstanding the essential role of verification, in order for substantive progress on an international legal agreement on PAROS to be achieved, it could be reasonable to postpone discussions on verification, while measures to enhance confidence and transparency must encouraged.

The importance of treaties, particularly those related to arms control (including outer space), for global peace was discussed. Today, outer space has the same strategic importance for States that nuclear weapons had a few decades ago. Information technology now represents the difference between winning and loosing a war, allowing States to collect specific data to prevent and/or execute attacks. Space weapons, can in fact, support the use of weapons on earth. For granting security for all countries, it was thought important to prevent world and space weaponization

through general agreement on and implementation of treaties for arms control, including effective surveillance and monitoring.

The continued development of ballistic missile defence technology, the deployment of ballistic missile defence systems and the policy of pursuing space control must all be considered as part of the outer space weaponization problem. The fundamental legal instrument governing outer space activities, the OST, has loopholes with regards to the prevention of outer space weaponization, and no international consensus has been reached on how to address the serious challenges facing outer space. However, important proposals concerning verification have been made (like the non-paper entitled Verification Aspects of PAROS, presented on 26 August 2004 at the CD by the Chinese and Russian Delegation to the CD). These proposals are valid points of reference in defining the capabilities and characteristics of effective verification measures, like on-site inspections carried out at launch sites and made by international observer teams.

Effective verification measures are indeed important to enhance confidence of States parties to a treaty. However, as no weapon has yet been deployed in outer space, the measures under discussion are purely preventive in nature, and consensus must be achieved first on prevention, rather than verification. If prevention of outer space weaponization is reached on the basis of a common political will, other issues, such as verification, could be easier to approach.

Following the presentations, the participants exchanged views over what should be taken into account to approach space surveillance and monitoring:

- The need to work more on a treaty that prevents the weaponization of outer space, and that contains methods of verification.
- The utility of a code of conduct that includes elements of no deployment of weapons and use of no harmful lasers (taking into account the fact that not all kind of lasers can be banned).
- The need for a clear definition of space weapons as an important part of a treaty and for the development of a serious verification regime that must include all States parties. The issue of the ill-defined scope of the concept of verification was pointed as part of the problem, since it prevented the development of an effective verification regime.
- The importance of political willingness and of not considering the lack of agreement on verification as an obstacle for a treaty preventing outer space weaponization, having in mind that before talking about verification, its important to define what is going to be verified.
- The use of a group of experts to establish general concepts that will benefit the implementation of a Treaty.

Session five: The Road Ahead

Opening remarks made by Theresa Hitchens from the Center for Defense Information underlined that there is still time for an international effort to block the advent of space weapons, through prevention and space surveillance. This international effort must focus on engaging States with 'no clear' political willingness to participate in the banning of weapons in the outer space (namely the United States), in areas where it is directly in their national interest to cooperate with other space-faring powers in the near-term.

According to this 'effort-focus', scientific and diplomatic efforts are needed to shape an understanding that outer space weaponization will endanger various national interests, thus discouraging States from pursuing destructive anti-space capabilities. The work on space debris mitigation can be a good opportunity to start building this understanding, because this known hazard to operations in space, which that makes no distinction between enemy and friendly assets, has a clear link to States' national interests. A specialized committee and an inter-agency body (COPUOS and IADC) have already started setting voluntary guidelines for all space-faring powers hoping to have clear, generally accepted and implemented international guidelines for space operations. This logic could be used to the whole area of space security. Namely by emphasizing the need for better and more reliable space surveillance data to monitor debris, share basic orbital data within an integrated network, improve satellite registration and tracking of space objects. Hitchens concluded that it is important to include all States in the dialogue on outer space security, rather that isolate one State because of its position on space weaponization. Measures that promote cooperation amongst space-faring powers in areas where they have mutual interests are the key for progress on ensuring outer space security.

Rebecca Johnson from the Acronym Institute alerted the participants to the ambiguous position of the European Union in its cooperation with the US on space programmes. Johnson addressed the particular issue of NATO agreement on developing an 'Active Layered Theatre Ballistic Missile Defence Programme', a system designed to protect troops on the ground from short-range ballistic missiles. NATO has adopted a vague term of 'multilayered protection against incoming threats' in the pursuit of a coherent system that integrates systems from theatre missile defence, mid-range missile defence to communications control and sensors. Johnson warned against the vagueness of such term for it renders missile defences less susceptible to detailed concrete measures and embeds the US interest in space dominance in the NATO agenda. The EU overall holds a position in support of PAROS, especially with initiatives from certain European governments, like Germany and the United Kingdom. While the European Space Agency advocates the peaceful development of space assets and the peaceful use of space. There is an underlying contradiction between the EU space policy and the NATO space defence policy that needs to be addressed. Johnson called on the EU, NATO and the European Space Agency collaborate more and for the EU to engage more with the wider international community. It was also suggested that the proposal by Egypt and Sri Lanka to the General Assembly should be made more relevant and that a group of experts on verification should be proposed

Discussion on how to preserve security in outer space and prevent an arms race in outer space put forward three options to choose from:

1. Refraining from any restrictions on the use of outer space. This would lead nowhere and jeopardize the peaceful use of outer space since various types of weapons would be put in orbit.
2. Putting limited restrictions on the use of outer space by relying on international pressure and national political willingness. This option depends on international political efforts to oppose the weaponization of outer space. However, political willingness is not enough to maintain outer space peaceful, and needs to be combined with legal binding instruments to restrict the development and deployment of space weapons.
3. Developing strict legal measures to nip the danger in the bud. This seems to be the most promising road. Over the years the international community has developed a number of instruments regulating the access and use of outer space. These include: regulating the protection of space vehicles, international liability for damage caused by space objects, confidence-building measures, prohibition of the placement of nuclear weapons or other WMD into orbit around the earth or on celestial bodies, prohibition of the militarization of the moon, prohibition of the development, testing and deployment of missile defence system and their components in outer space. However, these instruments, which are components of this option, are still quite limited. The OST only prohibits the deployment of nuclear weapons and other WMD in outer space, leaving unchecked other types of conventional and/or new concept weapons. To face this problem, we need to patch up the international legal system on outer space, in particular we need to ensure that we develop a comprehensive regime preventing weaponization of outer space and an arms race in outer space. There exist already a sound intellectual basis on which to build. This is reflected by the proposals made by several States at the UN and CD. The CD in particular constitutes a competent negotiating body of which States must take full advantage to establish a general agreement on the principles and regulations regarding the peaceful use of outer space. With these two elements, the intellectual basis and the existence of a negotiating body, States should be looking at commencing a relevant international legal regime to prevent the weaponization of outer space.

The participants exchanged comments, expressing the following ideas:

- Monitoring should not been seen as an expensive option because monitoring will be supported by capacity-building measures.
- We need to re-enforce political commitment and involve major world players.
- Awareness is not a problem, because it is already growing and 'on the way'.
- Taking a cooperative approach is important, as long as it goes in the direction of securing and monitoring the use of outer space, and guaranteeing the universal access to outer space.

Closing Session – Summary of Discussion and Thinking Ahead

In his concluding remarks, Mr. Hu Xiaodi, Ambassador for Disarmament Affairs of the People 's Republic of China, pointed out that the Conference has galvanized the consensus on peaceful uses of outer space and deepened all parties' understanding of the importance of safeguarding space security and preventing an arms race in space through legal and political means. In his view, this Conference has brought about a range of useful recommendations, including improving the 1967 Outer Space Treaty, constructive engagement and cooperation, verification, unilateral declaration on no-first-deployment of weapons in outer space, a space code of conduct, negotiate a legal instrument to prevent the weaponization in outer space, ensure space common security etc., that need to be further explored by the international community. Finally, he called upon all participants to work together to preserve a peaceful outer space for future generations.

Ambassador Leonid Skotnikov, Permanent Representative of the Russian Federation to the Conference on Disarmament, welcomed the substantial contribution provided by this conference by highly competent participants, concerned international organizations and other expert scientists and academics. The position of various nations to preserve outer space free of weapons was reaffirmed on this occasion. Space security was pointed out as a key global security issue, along with the non-proliferation of WMD and fighting terrorism. Any action by any State that would mean placing weapons in outer space would undoubtedly undermine international security, representing a major step back in disarmament efforts. This conference has offered a deeper understanding with regard to international legal instruments to safeguard space security. The existing treaties have loopholes and are insufficient for effectively preventing an arms race in outer space today. Ambassador Skotnikov argued that prevention is not unattainable if agreement on an international legal instrument on PAROS can be reached. The CD is the most fitting multilateral forum for discussions over the issue of PAROS, and it is important that initiatives be followed up. Ambassador Skotnikov expressed his hope that the flexibility already shown by Russia and China would be reciprocated.

Patricia Lewis, Director of UNIDIR, provided a summary of the issues addressed and noted that the discussions have brought the issue of space security on to a new level of political immediacy and urgency. The momentum of debates around the world was considered an encouraging prospect. Patricia Lewis took note of the following points:

- Space is for everybody and havoc in space means havoc for everybody.
- Cooperation is the key to dealing with space activities, not only because space is a common heritage for all but also because of the significant costs incurred in space exploration.
- The gap in technological capabilities is increasing. The volume of investment in technology R&D and involvement in space activities by commercial investors is something we should remain attentive to as we all have an interest at stake.
- Space debris havoc would damage the interests of all and put human exploration of space to an end.

Thinking ahead, it should be a priority for the international community to achieve a programme of work. There remains outstanding issues demanding further studies and discussions—such as a

clear and authoritative definition on 'weaponization' and 'reversible/permanent damages', and on the specifics for establishing a verification regime either under the UNGA or at the CD.

Patricia Lewis considered the annual review undertaken by the 'Space Security Index' as an important element of international work on the issue. Moreover, the principle of 'cooperative security' is a positive input and as are the proposals made to the General Assembly by countries such as Egypt and Sri Lanka. Patricia Lewis considered that since the US and other nations' interests indeed coincide on the issue of outer space, constructing discussions around the issue of common interests could serve to bring about a breakthrough in international forums. The Chinese-Russian joint working paper should deserve further consideration at the CD. To conclude, Patricia Lewis looked expectantly at the next country to make a significant move to follow the Russian declaration of no-first deployment of weapon in space.

CONFERENCE ON DISARMAMENT

CD/1756*
15 September 2005

ENGLISH
Original: ENGLISH and RUSSIAN

LETTER DATED 5 SEPTEMBER 2005 FROM THE PERMANENT REPRESENTATIVE OF THE RUSSIAN FEDERATION TO THE CONFERENCE ON DISARMAMENT ADDRESSED TO THE SECRETARY-GENERAL OF THE CONFERENCE TRANSMITTING THE SUMMARY OF THE SECOND OPEN-ENDED INFORMAL MEETING ON THE ISSUE OF THE PREVENTION OF AN ARMS RACE IN OUTER SPACE HELD ON 16 AUGUST 2005 IN GENEVA[1]

I have the honour to transmit to you the summary of the second open-ended informal meeting on the issue of the prevention of an arms race in outer space (PAROS), organized by the Russian Federation. This meeting was held in Geneva on 16 August 2005.

The prime objectives of the meeting were discussing the document CD/1679 "Possible Elements for a Future International Legal Agreement on the Prevention of the Deployment of Weapons in Outer Space, the Threat or Use of Force Against Outer Space Objects" and conducting in-depth exchange of views on the three thematic non-papers prepared and distributed at the Conference on Disarmament by the delegations of the Russian Federation and the People's Republic of China, namely:

1) "Existing International Legal Instruments and Prevention of the Weaponization of Outer Space" dated August 26, 2004;
2) "Verification Aspects of PAROS" dated August 26, 2004;
3) "Definition Issues Regarding Legal Instruments on the Prevention of the Weaponization of Outer Space" dated June 9, 2005.

The total number of participants of this meeting exceeded 100, representatives of over 50 countries and the UNIDIR attended it.

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* / Reissued for technical reasons.
1 / This document is reproduced as received by the Secretariat.

In the course of the meeting an effort was made to take a look at the eventual treaty prohibiting placement of weapons in outer space and threat or use of force against outer space objects, as a whole, and also to exchange views on some specific elements of the treaty and to explore possibilities and obstacles for further elaboration on those elements.

The meeting, in our view, has contributed significantly to preparation of an updated version of the document "Compilation of Comments and Suggestions to the CD Working Paper CD/1679"of 31 July 2003. It will, hopefully, stimulate a transparent discussion in the Conference and facilitate reaching consensus on this very important subject-matter.

We intend to continue deliberations focused on concrete elements of the proposed treaty on prevention of weaponization of outer space, threat or use of force against outer space objects.

I would be grateful if you could issue and circulate this letter with the attached summary of the aforementioned meeting as an official document of the Conference on Disarmament.

(Signed:) Leonid SKOTNIKOV
Ambassador
Permanent Representative of the
Russian Federation to the
Conference on Disarmament

Summary of the second open-ended meeting on the issue of the prevention of an arms race in outer space (PAROS) held by the Russian Federation (August 16, 2005)

The second open-ended informal meeting on PAROS, organized by the Russian Federation, was held in Geneva on 16 August 2005.

Representatives from 54 Member States and Observer States at the Conference on Disarmament as well as experts from the UNIDIR, totalling more than one hundred persons, attended the meeting.

Introductory remarks were made by the Deputy Permanent Representative of the Russian Federation to the UNOG and other international organizations in Geneva Mr. Anton Vasiliev and the Permanent Representative of the People's Republic of China to the CD, Ambassador Hu Xiaodi.

Intensive and interactive debate that followed was focused on in-depth review of the document CD/1679 "Possible Elements for a Future International Legal Agreement on the Prevention of the Deployment of Weapons in Outer Space, the Threat or Use of Force Against Outer Space Objects" of June 28, 2002 and analysis of the three thematic non-papers, distributed in the CD by the delegations of the Russian Federation and the People's Republic of China, namely:

1) "Existing International Legal Instruments and Prevention of the Weaponization of Outer Space" dated August 26, 2004;
2) "Verification Aspects of PAROS" dated August 26, 2004;
3) "Definition Issues Regarding Legal Instruments on the Prevention of the Weaponization of Outer Space" dated June 9, 2005.

More than 15 speakers took part in the debate. The UNIDIR introduced a summary of the proposals made by a wide range of experts from non-governmental and governmental institutions at conferences on PAROS organized in 2002, 2004 and earlier this year.

The importance of the issue of PAROS in security and disarmament agendas of many countries was repeatedly emphasized, as well as the wish to work on PAROS in the CD which was called the most appropriate negotiating forum to deal with this issue. The need was broadly acknowledged for a prompt re-establishment of the CD Ad Hoc Committee on PAROS to negotiate a new legal instrument on the basis of the CD/1679. It was underlined that exploratory and negotiating efforts should be coordinated with the other international fora dealing with specific aspects of outer space.

It was argued that the CD/1679 and the three subsequent thematic non-papers had been useful in helping to identify and consider possible elements of an eventual treaty on the prevention of placement of weapons in outer space, the threat or use of force against the outer space objects.

A view was expressed to enhance implementation of the important existing legal instruments related to outer space. It was also suggested to hold on the 40th anniversary of the Outer Space Treaty an international conference encompassing various UN bodies to discuss how to safeguard outer space security.

On the specific items of the agenda of the meeting the following views and proposals were expressed. (The co-authors of the CD/1679 mentioned that this was not an all-inclusive register and expressed their intention to prepare and distribute in the CD an updated and augmented version of the "Compilation of Comments and Suggestions to the CD Working Paper CD/1679").

Definitions

An article on definitions was suggested to be included in the proposed treaty to clarify its intended scope. Conversely, it was also recalled that the 1967 Outer Space Treaty had no definitions. Others recommended that the number of definitions included in an international legal instrument on non-weaponization of outer space should be kept to a minimum. A number of such potential "candidate" definitions were raised by different participants.

The thematic non-paper on definitions issues of non-weaponization of outer space was suggested to form the basis of focused discussions in a working group or in CD plenaries. The view was also expressed that a technical examination of proposed definitions would be necessary.

Among others, the term "weapon", as referred to outer space, may be properly fixed. The terms "peaceful purposes" and "for defensive purposes" should be explicitly defined. The issue of outer space objects, which can be used for defense purposes on the Earth, ought to be duly considered. There may also be a need to provide definitions for "space debris" and "launching state".

Basic obligations

In this context, it was argued that a treaty should not only focus on deployment restraints but also on the whole cycle from research to use.

It was proposed that such an instrument need not be a blanket prohibition of all weapons in space. A gradation of measures could be envisaged: from prohibitive measures, through restrictive measures and to permissive measures.

A concern was voiced that it could be counter-productive to seek to include measures to prevent temporary and reversible disruption of normal functioning of outer space objects. Jamming technology is already widely available, as are other types of electronic warfare.

The use of outer space for peaceful and other military purposes

It was suggested that the UNGA:

- adopt a resolution defining the "peaceful uses of outer space" (prohibiting weapons in space but allowing military uses of space);
- seek an advisory opinion of the International Court of Justice on the definition of the "peaceful uses" clause;
- convene an open-ended working group or establish a CD Ad Hoc Committee to discuss a treaty on cooperative security in outer space.

Confidence building measures

The view was expressed that, in addition to discussing comprehensive legal norms for a ban on weaponization of outer space and threat or use of force against outer space objects, other measures for space security ought to be also included, such as: space monitoring; debris reduction; space cooperation; "rules of the road", and further confidence building. It would also lay the necessary foundation for any future treaty.

A number of concrete CBMs was suggested that could be taken in parallel to negotiating a treaty on the prevention of weaponization of outer space and that would enhance security in outer space. Among other steps, nations could agree not to undertake weapon tests, including because they would create significant amount of debris. Self-declared moratoria on tests and placement of weapons in space would also be a political gesture of good will.

A code of conduct in outer space, as proposed, would mean: no simulated attacks on space assets and satellites, no dangerous manoeuvres, advance notice of manoeuvres, no harmful laser use, mitigation of debris, advance notice of launch, regulation of access and launch, and no interference with national technical means.

Verification

It was repeatedly noted that verification was an essential element of the proposed treaty and would contribute significantly to security of outer space. A concern was voiced over the statement that treaties "are still effective" without verification procedures.

Conversely, others argued that the technical challenges in ensuring effective verification of compliance with such an agreement, coupled with the political difficulties, meant that the development of a verification mechanism would have to be postponed and addressed within an additional protocol.

The view was expressed that verification was more than a purely technological issue and would require extensive discussion. The point was made that there were a number of steps that could be undertaken at an early stage, including better implementation of existing commitments, elaboration and adoption of CBMs.

It was stated that specific issues contained in the Russian-Chinese thematic paper on verification aspects of non-weaponization of outer space deserved a careful technical study. In this context one of the relevant issues is the cost of verification.

Executive organization

It was marked that provisions of the treaty should ensure that it addresses issues related to membership and authority of the Executive organization and its mandate to consider and resolve disputes. It was suggested that the OPCW and IAEA Board of Governors could serve as useful food for thought in this regard.

There was a view expressed that the role of the Executive organization in registration - one of the fundamental means of verification - should be explored.

At the same time, questions were raised on the necessity of setting up an Executive organization.

Entry-into-force of the treaty

Ratification by the P5 should not be the precondition for the treaty entry-into-force in order to avoid the fate of the CTBT. There was also opinion raised that this is unduly restrictive and could act to condemn the entry-into-force to failure. It might be more effective to define a number of ratifications for the entry-into-force rather than to establish an explicit list of countries all of whom must ratify the treaty.

Conversely, the point was made that the future treaty should be ratified by all P5 states. Otherwise, the effectiveness of the Treaty will be weakened.

A doubt was expressed over the relevance of ratification by 20 states as a precondition for the treaty EIF. It was underlined that the treaty would be effective only if ratified by all the states with capabilities in outer space.

Possible additional elements

The idea of adding a special provision banning anti-satellite weapons was advanced. This, it was thought, would appeal to states which have no direct space capability but which widely use outer space technology and assets for their socio-economic development.

There was a concern voiced on the debris problem: the presence of space debris from military activities and weapon tests and the over-crowding of certain satellite orbits obviate security in outer space. Specific technical measures to mitigate and prevent debris creation, as well as to track and to eliminate debris, could also be addressed in the treaty.

It was stressed that a specific language for issues of registration and liability in the context of PAROS should be provided for.

CONFERENCE ON DISARMAMENT

CD/1769
14 February 2006

ENGLISH
Original: CHINESE, ENGLISH and RUSSIAN

LETTER DATED 14 FEBRUARY 2006 FROM THE PERMANENT REPRESENTATIVE OF THE RUSSIAN FEDERATION AND THE PERMANENT REPRESENTATIVE OF CHINA TO THE CONFERENCE ON DISARMAMENT ADDRESSED TO THE SECRETARY-GENERAL OF THE CONFERENCE TRANSMITTING A COMPILATION OF COMMENTS AND SUGGESTION TO THE WORKING PAPER ON PAROS CONTAINED IN DOCUMENT CD/1679 DATED 28 JUNE 2002

We have the honour to transmit the Chinese, Russian and English texts of the working paper "Compilation of Comments and Suggestions to the CD PAROS Working Paper CD/1679)", prepared by the Russian and Chinese delegations to the CD.

We would be grateful if this letter and the attached working paper could be issued and circulated as official documents of the Conference on Disarmament.

(Signed:) Valery Loshchinin
Ambassador
Permanent Representative of the
Russian Federation to the
Conference on Disarmament

(Signed:) Cheng Jingye
Ambassador for Disarmament Affairs
Head of Delegation of the
People's Republic of China
to the Conference on Disarmament

Compilation of Comments and Suggestions to the CD PAROS Working Paper (CD/1679)[1]

(Second, revised and amended version as of February 13, 2006)

I. General Comments

Some delegations believed the joint Chinese and Russian initiative is a timely one with a view to cover the loopholes of the current legal system with regard to the peaceful use of outer space. They commended the Russian and Chinese delegations for the Working Paper CD/1679 of June 2002 on draft elements for a PAROS agreement and the three subsequent thematic non-papers, which were useful in helping to identify and consider possible elements of a PAROS treaty.

They also noted the contributions of the three conferences on space security, involving governmental, NGO and academic experts, which were held in Geneva in November 2002, March 2004 and March 2005. These meetings had served to illustrate the wide interest in an agreement on the non-weaponization of outer space. These meetings urged the CD to start substantive work on PAROS issues at an early date so as to enable full-fledged discussion and negotiation on this matter.

One delegation preferred to negotiate as a first step an instrument best regarded as a space-based weapon ban. One delegation suggested working on building norms in the area of space asset safety, rather than negotiating a treaty in the first place. Some delegations suggested starting with CBMs, such as pre-notification of ballistic missile launches.

One delegation suggested giving consideration to putting forward in-depth papers on specific topics, such as "definitions", "the use of outer space for civilian and military purposes", etc, to explore possible legal methods for ensuring the maintenance of a weapons-free outer space. A new title of CD/1679, i.e., "Elements for Dealing with Outer Space Issues" was proposed. A suggestion of avoiding duplicating the work of the Committee on the Peaceful Uses of Outer Space (UNCOPUOS) at Vienna was also made.

As regards working out an international instrument on outer space, it was suggested that the most efficient legal approach would be to incrementally secure international instruments in the areas where consensus may exist.

It was repeatedly noted that the Conference on Disarmament was the designated forum to carry out the relevant negotiations. Negotiation efforts should be coordinated within and between

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[1] Prepared by the delegations of Russia and China to the CD on the basis of comments and suggestions made by members and observers of the CD and the UNIDIR in their notes, non-papers, addresses and consultations, as well as statements and interventions at the open-ended meetings on PAROS, including on August 16, 2005.

the different forums dealing with specific aspects of outer space: the CD, the UNCOPUOS, the UNGA First Committee, the NPT review process.

In addition to discussing comprehensive legal norms for a ban on space based weapons it also makes sense to include measures for space security that are easier to obtain because they more or less serve the interests of all states, such as space monitoring, confidence building, debris reduction, space cooperation, and rules of the road.

II. Definitions

Some countries are suggesting definitions should be included in the proposed treaty. It was suggested that the thematic non-paper on definitions issues of PAROS would form the basis of focused discussions in a working group or in the CD. One delegation reiterated that a technical examination of these definitions would be necessary

It was also recommended that the number of definitions included in an international legal instrument on PAROS should be kept to a minimum. It was recalled in this context that the Outer Space Treaty had no definitions. Even with a shortened list, one will have to guard against becoming stuck on any definition. For example, a definition to delimit "outer space" has been discussed by the COPUOS Legal Subcommittee since 1959 without agreement.

A section containing definitions of the major key terms or expressions would help to clarify the intended scope of the treaty.

The definition of a "space object" would be useful. It might therefore be best to coin a term or phrase other than "space object" to clarify the intent of the instrument.

This paragraph would benefit from definitions for "objects" and "weapons" to enunciate clearly the scope of the intended obligation and help establish clarity of purpose.

More clarity might also be gained if a "weapon" were defined in terms of a component of a system, its intended effects and the means it employs to achieve its intended effects.

"Peaceful purposes" includes "non-aggressive" military use of outer space. The term "peaceful purposes" could be explicitly defined.

"Peaceful purposes" includes "other military purposes". "Other military purposes" should be clearly defined.

The term "trajectory" should be clarified, because objects like intercontinental missiles are not outer space weapons, although they partly pass through outer space.

The notion of "peaceful use" should be defined to exclude different interpretations of the proposed Agreement's provisions aimed to prevent the deployment of weapons, the threat or use of force in outer space.

Some definitions that deal with physical issues should not be seen as irresolvable. With "space objects" being ruled by orbital mechanics, it is not necessary to set a precise line where outer space begins.

Banning weapons in space should focus on those systems that are "specially designed" to destroy space objects (including ASAT on the ground, in the sea or air) and space objects themselves specially designed to destroy any other target. While the clause "specially designed" does not resolve the dual-use issue, it would include a large class of the most threatening systems and activities.

Another issue is the difference between a generic weapon system and a system that might be used as a weapon (an ASAT vs. the space shuttle). A related issue is a weapon intended for one purpose (ABM) but which has a residual capability in another field (ASAT). These points are not captured. The text defining weapons does not include terrestrially based ASAT weapons.

The language on location of launchers technically would not cover sea launch activities or any other launch activities that are not undertaken "in the territory of a state."

Missing here is any discussion of weapons used to support aggressive military activities - targeting and cueing satellites, for example, or even GPS. A third paragraph should be devoted to uses that go beyond non-aggressive use.

The line about "self-protection" for cosmonauts opens cracks that might be abused; that measure does not seem necessary. This item should not be included as it defeats the purpose, as some states may demand other weapons for "self-defense." Various agreements already pledge all states to help astronauts in distress.

There is a need to provide definitions for “space debris” and “launching state”. The latter is fundamental for all space activities. As a starting point of reference, the Liability and Registration Conventions can be used, as they provide a definition for “launching state”, although not perfect one.

One delegation suggested that the treaty must ban only offensive weapons in space. There should be an exception for weapon-like systems for satellite protection against debris.

It was also suggested to define “non-destructive” space weapons and “legitimate military activities”.

III. Basic Obligations

Para. 1: a) The words "testing", "production", "deployment", "transfer" and "use" could be used to elaborate the intended prohibitions; b) Include new sub-para: "prohibition on the deployment of weapons on orbital trajectories to and from celestial bodies including the Moon, or in orbit around the Moon or any other celestial body".

Para. 2: a) The reference to "general principles of international law" in Article V of CD/1679 could perhaps cover the issue of "threat or use of force" curbing the need for definitions; b) The concept of a temporary operational disruption, displacement or other non-damaging interference with a space object by another space object may also need to be addressed; c) Frame the inherent use ban of this obligation to include the testing of any weapons against space objects or "for anti-satellite purposes".

Para. 3: International trade in dual-use space hardware, software and technical data is enormous, thus this obligation could be hard to fulfill. Suggestions: a) Consider controls or limitations on launches of weapons into outer space on behalf of other states; or b) Focus on the use of the hardware, software and technical data, which have to be consistent with the obligations set out in the instrument.

Should include prohibition of objects not only in orbit, but also in a trajectory status taking the spirit of Article 3 (3) of the Agreement Governing the activities of States on the Moon and other Celestial Bodies.

It was proposed that such an instrument need not be a blanket prohibition on all weapons in space. A gradation of measures could be envisaged: from prohibitive measures, through restrictive measures and to permissive measures. For example, measures relating to lasers would therefore not be prohibitive but rather restrictive (allowing the use of only certain categories of lasers while banning other uses).

A treaty should not only focus on deployment restraints but also on the whole process from research to use. A test ban for space weapons is the key issue in this process as it limits capabilities before they emerge and is the most visible part to be monitored. In addition, there should be a monitoring system also focusing on the production process and production facilities.

A concern was voiced that it could be counter-productive to seek to include measures to prevent temporary and reversible disruption of normal functioning of outer space objects. Jamming technology is already widely available, as are other types of electronic warfare.

IV. The Use of Outer Space for Peaceful and Other Military Purposes

In Para. 2, a variation of the OST could be considered in this context: "States Parties shall carry on activities [...] in outer space [,including the Moon and other celestial bodies]in accordance with the general principles of international law, including the Charter of the United Nations, in the interest of maintaining international peace and security and promoting international cooperation and understanding".

Some concrete steps towards securing the peaceful use of outer space were accentuated. It was suggested that the UNGA: pass a resolution defining the "peaceful uses of outer space" (prohibiting weapons in space but allowing military uses of space); seek an advisory opinion of the International Court of Justice on the definition of the "peaceful uses" clause; and convene an open-ended working group or establish an Ad-Hoc Committee within the CD to discuss a treaty on cooperative security in outer space.

V. CBMs

Consider moving from CBMs to actual verification measures, of a sort sufficient to generate the evidence upon which objective compliance determinations could be made, and to feed into the dispute resolution mechanism.

Since the International Code of Conduct on Prevention of Proliferation of Ballistic Missiles (ICOC) aims to increase confidence by such transparency measures as pre-launch notification, its relevant wording can be incorporated into CD/1679 to win the support of ICOC subscribing states.

The wording of CBMs for a future outer space treaty should refer to multilaterally negotiated and internationally accepted languages rather than copying non-negotiated text. In this context, the experience gained in civil space activities could be used for elaborating Codes of Conduct.

Establish a regime of prior notification of launches of space launchers and ballistic missiles which could be supplemented by the setting-up of an international center responsible for the centralization and redistribution of collected data, so as to increase the transparency of space activity.

The States parties should transmit in writing to an international center notification of launches of space launchers (carrying satellites or other space objects) and ballistic missiles which they have planned. Such notification could take place one month before the planned date of launch (launch windows in terms of weeks or days, and time of each launch) and would be confirmed 24 hours before the actual launch.

As for space launchers, apart from the planned date of launch, the launching state should communicate the geographic impact area.

Regarding space objects, the owning State or State of registry should communicate the following information:

Name of owning State or State of registry; Orbital parameters (perigee, apogee, nodal period, inclination); General function of the space object; Reference to its unarmed character; Indication of maneuverability; Physical characteristics (mass, planned lifetime).

With respect to missiles with a ballistic trajectory having a range of 300 km or more, the launching State should communicate:

Date of launch; Launching area; Impact area.

An international notification center should be set up. The center would essentially fulfill the following function:

Receive notifications of launches of ballistic missiles and space launchers transmitted to it by States parties;

Receive the information transmitted by States parties on launches actually carried out. State-parties, possessing detection capabilities shall communicate to the international center, on a voluntary basis, data relating to launches detected by them;

Place through a data bank, the above-mentioned information at the disposal of the international community.

The view was expressed that other measures for space security ought to be also included, such as: space monitoring; debris reduction; space cooperation; "rules of the road", and further confidence building. It would also lay the necessary foundation for any future treaty.

Negotiating a treaty might take time and therefore immediate work on building norms in the area of space asset safety is essential. Improved space surveillance and data exchange would not only help to get a better handle on dangerous space debris and improve collision avoidance, but would also increase transparency of space operations that, in and of itself, would be a CBM.

A number of concrete CBMs was suggested that could be taken in parallel to negotiating a treaty on the prevention of weaponization of outer space and that would enhance security in outer space. Among other steps, nations could agree not to undertake weapon tests, including because they would create significant amounts of debris.

Establish "rules of the road", or a code of conduct, to regulate activities in outer space. A code of conduct in outer space, as proposed, would mean: no simulated attacks on space assets and satellites, no dangerous maneuvers, advance notice of maneuvers, no harmful laser use, mitigation of debris, advance notice of launch, regulation of access and launch, and no interference with national technical means. A code of conduct would require: cooperative monitoring, transparency, notification, traffic management and tracking, and verification.

It was suggested that states may seek inspiration from the Incidents at Sea Agreement, which defines good practice, in particular to avoid collisions and ambiguous situations.

Self-declared moratoria on tests and placement of weapons in space would also be an important political gesture of good will. Unilateral declarations by states not to be the first to place weapons in space could be very useful in promoting a "coalition of the willing" to prevent weaponization.

Space exploration is costly and is best served through international cooperation. A regime of international collaboration in space would prevent certain countries from the temptation of putting weapons in space by allaying their security concerns.

VI. Verification

It was suggested that as no weapons have yet been deployed in outer space, the verification measures under discussion are purely preventive in nature, and consensus must be achieved first on the prevention of deployment of weapons in outer space, rather than verification. Once a ban on the weaponization of outer space is realized, other issues, like verification, might be easier to approach.

Some countries suggested verification should be included in the proposed treaty.

Verification measures could include: open source information analysis; state declarations; terrestrial observation of space objects; space-based observation of space objects; sensors on board space objects for in situ sensing, and on on-site inspections. The negotiating parties of the treaty would first need to agree on the obligations to be verified and the level of confidence to be required.

CBMs could be included in this article.

As a further confidence building measure, there should be a moratorium on the testing of all kinds of weapons and development of weapons in outer space.

Verification is an essential element of the proposed treaty that could provide for the settlement of any concerns over other States parties' adherence to the treaty. It was suggested that verification issues could not be easily postponed.

Others argued that the technical challenges in ensuring effective verification of compliance with such an agreement, coupled with the political difficulties, meant that the development of a verification mechanism would have to be postponed and addressed within an additional protocol.

It was suggested that with current technology, and coupling in new reporting requirements for launchers and operators, an international system could be put together to carry out space surveillance with reasonable accuracy.

Verification of a treaty for outer space could adopt a layered approach of sufficient intrusiveness to discern weapon-related developments from non-weapon developments, even in an industry where military and civilian technologies are similar and missions frequently dual-use.

According to the 1975 Convention on Registration, launching states are required only to report the initial insertion orbit of a satellite, not its final destination. That is a critical loophole that needs to be plugged to ensure verification.

Space monitoring could be developed further. Some space-faring nations have a space tracking network that can be linked. With existing technical equipment and use of Internet, a lot of information can be gathered and exchanged, as is already being done to a degree.

While understanding concerns about verification of any treaty that includes terrestrially based ASATs, testing of such weaponry could be banned and that ban could be verified.

A number of steps could be undertaken at an early stage, including better implementation of existing commitments, elaboration and adoption of CBMs.

Specific issues contained in the Russian-Chinese thematic paper on verification deserve a careful technical study. In this context one of the relevant issues is the cost of verification.

Verification is more than a purely technological issue and will require extensive discussion.

VII. Settlement of Disputes

Introduction of a third party mechanism might be useful. The entire section on Settlement of Disputes could be redrafted to mirror Paragraphs (2) and (3) of Article 15 of the Moon Treaty, along the following lines:

> "A State Party which has reason to believe that another State Party is not fulfilling the obligations incumbent upon it pursuant to this Agreement or that another State Party is interfering with the rights which the former State has under this Agreement may request consultations with that State Party. A State Party receiving such a request shall enter into such consultations without delay. Any other State Party which requests to do so shall be entitled to take part in the consultations. Each State Party participating in such consultations shall seek a mutually acceptable resolution of any controversy and shall bear in mind the rights and interests of all States Parties. The Secretary-General of the United Nations shall be informed of the results of the consultations and shall transmit the information received to all States Parties concerned".
>
> "If the Consultations do not lead to mutually acceptable settlement which has due regard for the rights and interests of all States Parties, the parties concerned shall take all measures to settle the dispute by other peaceful means of their choice appropriate to the circumstances and the nature of the dispute. If difficulties arise in connection with the opening of consultations or if consultations do not lead to a mutually acceptable settlement, any State Party may seek the assistance of the Secretary-General [in this context, the Executive Organization perhaps], without seeking the consent of any other State Party concerned, in order to resolve the controversy".

The joint working paper could also benefit from including provisions for the gathering and examination of agreed verification information as part of the operation of the dispute resolution mechanism.

A number of questions of detail will need to be settled. For example, which rules of procedure are to be applied? How will decisions be reached? Will the decisions be binding? If so, what would be the enforcement mechanism(s)?

The relevant text of CD/1679 should be maintained since it is much better than the relevant part of the "Compilation of Comments and Suggestions to the CD PAROS Working Paper" of July 31, 2003.

The relevant content of CWC and BWC can be consulted in this article.

VIII. Executive Organization

This section needs significant expansion to address issues related to membership and authority of the Executive Organization, its exact mandate in relation to the settlement of disputes, and the case of whether an exiting organization could be pressed into service in lieu of creating a new body.

Para.1 a). Revise as: receive for consideration inquiries by any State Party or a group of States Parties to the Treaty related to a dispute aroused by a suspected violation of this Treaty by any State Party to the Treaty;

Para.1 d). This obligation could be read as an unbounded set of incentives or penalties. The treaty would need to set out clear provisions of objective criteria and verified evidence to ascertain non-compliance, and details of the decision-making mechanism.

The obligation of the executive organization and the mandate of meetings of State Parties should be clearly stipulated.

This Article should address issues related to membership and authority of the Executive Organization and its mandate to consider and resolve disputes. The CWC offers some useful food for thought in this regard, as does the IAEA Statute.

The role of the Executive Organization in registration - one of the fundamental verification means - should be explored.

IX. Amendments to the Treaty

The second half of Para. 2 shall spell out explicitly the amendment procedure of the OST: "Any State Party to the Treaty may propose amendments to this Treaty. Amendments shall enter into force for each State Party to the Treaty accepting the amendments upon their acceptance by the majority of the States Parties to the Treaty and thereafter for each remaining State Party to the Treaty on the date of acceptance by it".

This part should be consistent with the relevant content of the Vienna Convention on the law of the treaties.

X. Signature and Ratification of the Treaty

Instruments of ratification should be deposited with UN Secretary General.

XI. Entry-into-Force of the Treaty

Ratification of P5 should not be the precondition for treaty EIF, in order to avoid the fate of the CTBT. This is unduly restrictive and could act to condemn the entry-into-force to failure. It might be more effective to define a number of ratifications for EIF rather than to establish an explicit list of countries. It is better to avoid such a placement of P5 in an EIF formulation. One may consider two options:

Option 1: List all states with a space launch capability but indicate that the ratification of a specified number (i.e. not all) of them would trigger entry-into-force;

Option 2: Request ratification by a specific number of "states that can successfully launch objects into outer space" or something along those lines, rather than naming them.

It is the lack of political will rather than the EIF clause that obstructed CTBT from EIF. Conversely, the point was made that the future treaty should be ratified by all P5 states. Otherwise the effectiveness of the Treaty will be weakened.

A doubt was expressed over the relevance of ratification by 20 states as a precondition for the treaty EIF. It was underlined that the treaty would be effective only if ratified by all the states with capabilities in outer space.

XII. International Cooperation

The elements of cooperation and assistance of peaceful use of outer space should also be added to the proposed treaty.

"International cooperation" and "CBMs" are closely related, so they can be merged into one section. The proposed language is as follows: "Each State party shall endeavor to establish joint projects and programmes with other State parties to further promote peaceful uses of outer space for the benefit of all humankind".

"States shall follow the principle of mutual cooperation and assistance in the most adequate way, on an equitable and mutually acceptable basis, taking into account the particular needs of developing countries".

XIII. Possible Additional Elements

Periodic review conferences.

An obligation not to enter into international obligations contrary to the obligations of the treaty.

Naming of the depository governments.

A requirement that a state party to the treaty may not make reservations.

A special provision banning anti-satellite weapons.

Specific technical measures to mitigate and prevent debris creation, as well as to track and to eliminate debris.

A specific language for issues of registration and liability.