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## 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.

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:

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| CD/908/Rev.1      | Letter dated 22 March 1990 addressed to the  |
| CD/OS/WP.29/Rev.1 | 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 <u>Ad Hoc</u> 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 <u>Ad Hoc</u> 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           | 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   |
| CD/OS/WP.42       |  |

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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 existing weapons.

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 structured 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 Trajectory 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 educational 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.