REPORT
OF THE PREPARATORY COMMITTEE FOR THE SPECIAL SESSION OF THE GENERAL ASSEMBLY DEVOTED TO DISARMAMENT

Volume IV

GENERAL ASSEMBLY

OFFICIAL RECORDS: TENTH SPECIAL SESSION

SUPPLEMENT No. 1 (A/S-10/1)

UNITED NATIONS

(390 p.)

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New York, 1978

NOTE

Symbols of United Nations documents are composed of capital letters combined with figures. Mention of such a symbol indicates a reference to a United Nations document.

The report of the Preparatory Committee for the Special Session of the General Assembly Devoted to Disarmament consists of the text of the report (volume I) and its annexes, which are contained in six volumes (volumes II to VII).

Volumes II to VI contain the documents of the Preparatory Committee except the summary records which are found in volume VII.

In volumes II to VI the documents are in order of symbol and in each volume a detailed chronological list has been provided. A list of the documents, by subject, follows:

1. Replies of Member States in response to General Assembly resolution 31/89 B

A/32/60, A/32/62, A/AC.187/2 and Corr.1, A/AC.187/3-9, A/AC.187/10 and Corr.1, A/AC.187/11-25, A/AC.187/26 and Corr.1, A/AC.187/27, A/AC.187/28, A/AC.187/32-50, A/AC.187/52-55, A/AC.187/57-60, A/AC.187/61 and Corr.1, A/AC.187/62-66, A/AC.187/84-86 and A/AC.187/99.

2. Working papers and other documents submitted by Member States

A/AC.187/30/Add.1, A/AC.187/54, A/AC.187/55/Add.1 and Corr.1 and Corr.2, A/AC.187/56, A/AC.187/77-82, A/AC.187/87, A/AC.187/89 and Add.1, A/AC.187/90-92, A/AC.187/94-98, A/AC.187/101-103, A/AC.187/105 and A/AC.187/107-114.

3. Background papers, working papers and tabulations prepared by the Secretariat at the request of the Committee

A/AC.187/29 and Corr.1 and Add.1, A/AC.187/30 and Corr.1, A/AC.187/31, A/AC.187/51 and Corr.1 and Corr.2 and Add.1, A/AC.187/67-73, A/AC.187/74 and Corr.1, A/AC.187/75 and Corr.1 and Corr.2, A/AC.187/76, A/AC.187/83, A/AC.187/93/Rev.1 and Corr.1, A/AC.187/100 and Corr.1, A/AC.187/104 and A/AC.187/109.

4. Information bulletins

A/AC.187/INF.2-7.

ANNEX I

DOCUMENTS OF THE PREPARATORY COMMITTEE ANNEXED TO ITS REPORT

Document No.	Title
	VOLUME II
A/32/60	Letter dated 1 March 1977 from the Permanent Representative of the Union of Soviet Socialist Republics to the United Nations addressed to the Secretary-General
A/32/62	Letter dated 23 March 1977 from the Permanent Representative of the German Democratic Republic to the United Nations addressed to the Secretary-General
A/AC.187/1	Provisional agenda (meeting held on 28 March 1977)
A/AC.187/2 and Corr. 1	Letter dated 22 March 1977 from the Permanent Representative of Iran to the United Nations addressed to the Secretary-General
A/AC.187/3	Letter dated 24 March 1977 from the Permanent Mission of the Syrian Arab Republic to the United Nations addressed to the Secretary-General
A/AC.187/4	Letter dated 29 March 1977 from the Acting Permanent Representative of the Byelorussian Soviet Socialist Republic to the United Nations addressed to the Secretary-General
A/AC.187/5	Letter dated 31 March 1977 from the Minister of Foreign Affairs of the Ukrainian Soviet Socialist Republic addressed to the Secretary-General
A/AC.187/6	Letter dated 8 April 1977 from the Permanent Representative of the Hungarian People's Republic to the United Nations addressed to the Secretary-General
A/AC.187/7	Letter dated 7 April 1977 from the Permanent Representative of the State of Kuwait to the United Nations addressed to the Secretary-General
A/AC.187/8	Letter dated 13 April 1977 from the Permanent Representative of the Republic of Venezuela to the United Nations addressed to the Secretary-General
A/AC.187/9	Letter dated 12 April 1977 from the Permanent Representative of Spain to the United Nations addressed to the Secretary-General
A/AC.187/10 and Corr. 1	Letter dated 12 April 1977 from the Permanent Representative of Belgium to the United Nations addressed to the Secretary-General
A/AC.187/11	Letter dated 14 April 1977 from the Permanent Representative of the Socialist Federal Republic of Yugoslavia to the United Nations addressed to the Secretary General
A/AC.187/12	Letter dated 15 April 1977 from the Permanent Representative of the Polish People's Republic to the United Nations addressed to the Secretary-General
A/AC.187/13	Letter dated 14 April 1977 from the Permanent Representative of the Czechoslovak Socialist Republic to the United Nations addressed to the Secretary-General
A/AC.187/14	Letter dated 15 April 1977 from the Permanent Representative of Japan to the United Nations addressed to the Secretary-General

Document No.	Title
A/AC.187/15	Letter dated 15 April 1977 from the Permanent Representative of Turkey to the United Nations addressed to the Secretary-General
A/AC.187/16	Note verbale dated 19 April 1977 from the Permanent Mission of Mongolia to the United Nations addressed to the Secretary-General
A/AC.187/17	Letter dated 22 April 1977 from the Permanent Representative of the United States of America to the United Nations addressed to the Secretary-General
A/AC.187/18	Note verbale dated 15 April 1977 from the Permanent Mission of the Republic of Cyprus to the United Nations addressed to the Secretary-General
A/AC.187/19	Note verbale dated 25 April 1977 from the Permanent Representative of Sweden to the United Nations addressed to the Secretary-General
A/AC.187/20	Note verbale dated 19 April 1977 from the Permanent Representative of Denmark to the United Nations addressed to the Secretary-General
A/AC.187/21	Note verbale dated 26 April 1977 from the Permanent Representative of Finland to the United Nations addressed to the Secretary-General
A/AC.187/22	Note verbale dated 26 April 1977 from the Permanent Representative of Norway to the United Nations addressed to the Secretary-General
A/AC.187/23	Letter dated 25 April 1977 from the Permanent Representative of France to the United Nations addressed to the Secretary-General
A/AC.187/24	Letter dated 27 April 1977 from the Permanent Representative of Romania to the United Nations addressed to the Secretary-General
A/AC.187/25	Note verbale dated 26 April 1977 from the Permanent Representative of the Netherlands to the United Nations addressed to the Secretary-General
A/AC.187/26 and Corr. 1	Note verbale dated 27 April 1977 from the Permanent Representative of Canada to the United Nations addressed to the Secretary-General
A/AC.187/27	Note verbale dated 25 April 1977 from the Permanent Mission of Indonesia to the United Nations addressed to the Secretary-General
A/AC.187/28	Note verbale dated 27 April 1977 from the Permanent Mission of Algeria to the United Nations addressed to the Secretary-General
A/AC.187/29 and Corr. 1 and Add. 1	Disarmament resolutions adopted by the General Assembly - Background paper prepared by the Secretariat

Document No.	Title
	VOLUME III
A/AC.187/30 and Corr. 1	Existing principles and proposals for the conduct of disarmament negotiations - Background paper prepared by the Secretariat
A/AC.187/30/Add.1	- Working paper containing a preliminary draft comprehensive programme of disarmament submitted by Mexico on 23 August
A/AC.187/31	Existing structures and machinery for disarmament negotiations - Background paper prepared by the Secretariat
A/AC.187/32	Note verbale dated 30 April 1977 from the Permanent Representative of Italy to the United Nations addressed to the Secretary-General
A/AC.187/33	Note verbale dated 25 April 1977 from the Permanent Representative of Australia to the United Nations addressed to the Secretary-General
A/AC.187/34	Note verbale dated 26 April 1977 from the Permanent Representative of Mexico to the United Nations addressed to the Secretary-General
A/AC.187/35	Letter dated 29 April 1977 from the Permanent Representative of the United Kingdom to the United Nations addressed to the Secretary- General
A/AC.187/36	Letter dated 28 April 1977 from the Permanent Representative of Bulgaria to the United Nations addressed to the Secretary-General
A/AC.187/37	Note verbale dated 29 April 1977 from the Permanent Representative of Ireland to the United Nations addressed to the Secretary-General
A/AC.187/38	Note verbale dated 2 May 1977 from the Permanent Representative of Israel to the United Nations addressed to the Secretary-General
A/AC.187/39	Note verbale dated 2 May 1977 from the Permanent Representative of Luxembourg to the United Nations addressed to the Secretary-General
A/AC.187/40	Note verbale dated 3 May 1977 from the Permanent Representative of New Zealand to the United Nations addressed to the Secretary-General
A/AC.187/41	Communication dated 5 May 1977 received from the Permanent Mission of Austria on the views and suggestions of the Austrian Government concerning the special session of the General Assembly devoted to disarmament
A/AC.187/42	Note verbale dated 11 April 1977 from the Permanent Mission of Peru to the United Nations addressed to the Secretary-General
A/AC.187/43	Communication dated 10 May 1977 from the Permanent Representative of Sri Lanka to the United Nations and Chairman of the Co-ordinating Bureau of Non-Aligned Countries addressed to the Secretary-General
A/AC.187/44	Note verbale dated 9 May 1977 from the Permanent Representative of the Federal Republic of Germany to the United Nations addressed to the Secretary-General

Document No.	Title
A/AC.187/45	Note verbale dated 6 May 1977 from the Permanent Mission of Greece to the United Nations addressed to the Secretary-General
A/AC.187/46	Note verbale dated 2 May 1977 from the Permanent Mission of Colombia to the United Nations addressed to the Secretary-General
A/AC.187/47	Note verbale dated 10 May 1977 from the Permanent Representative of India to the United Nations addressed to the Secretary-General
A/AC.187/48	Letter dated 11 May 1977 from the Permanent Representative of Argentina to the United Nations addressed to the Secretary-General
A/AC.187/49	Note verbale dated 11 May 1977 from the Permanent Representative of Brazil to the United Nations addressed to the Secretary-General
A/AC.187/50	Note verbale dated 10 April 1977 from the Permanent Representative of Cuba to the United Nations addressed to the Secretary-General
A/AC.187/51 and Corr. 1 and Corr. 2 and Add. 1	Views of Member States on the agenda and all other relevant questions relating to the Special Session of the General Assembly devoted to disarmament - Background paper prepared by the Secretariat

VOLUME IV

A/AC.187/52	Letter dated 6 May 1977 from the Foreign Secretary of Pakistan addressed to the Secretary-General
A/AC.187/53	Note verbale dated 16 May 1977 from the Permanent Representative of Malaysia to the United Nations addressed to the Secretary-General
A/AC.187/54	Draft agenda submitted by the Permanent Representative of Sri Lanka on behalf of the non-aligned members of the Preparatory Committee
A/AC.187/55	Communication dated 18 May 1977 from the Permanent Representative of Sri Lanka to the United Nations and Chairman of the Co-ordinating Bureau of Non-Aligned Countries addressed to the Secretary-General
A/AC.187/55/Add.1 and Add.1/Corr.1 and Add.1/Corr.2	- Special Session of the General Assembly Devoted to Disarmament: Non-Aligned working document containing the draft declaration, programme of action and machinery for implementation
A/AC.187/56	Some fundamental principles and norms for possible inclusion in the "Declaration on Disarmament" envisaged in the draft agenda of the special session of the General Assembly devoted to disarmament, approved by the Preparatory Committee on 18 May 1977 - Mexico: working paper

Document No.	Title
A/AC.187/57	Note verbale dated 25 May 1977 from the Permanent Mission of the Philippines to the United Nations addressed to the Secretary-General
A/AC.187/58	Letter dated 27 May 1977 from the Permanent Representative of Qatar to the United Nations addressed to the Secretary-General
A/AC.187/59	Note verbale dated 2 June 1977 from the Chargé d'Affaires a.i. of Portugal to the United Nations addressed to the Secretary-General
A/AC.187/60	Letter dated 9 June 1977 from the Permanent Representative of Mauritius to the United Nations addressed to the Chairman of the Preparatory Committee
A/AC.187/61 and Corr.1	Note verbale dated 10 June 1977 from the Permanent Representative of Egypt to the United Nations addressed to the Secretary-General
A/AC.187/62	Letter dated 9 June 1977 from the Permanent Representative of Mauritius to the United Nations addressed to the Secretariat of the United Nations
A/AC.187/63	Note verbale dated 7 June 1977 from the Permanent Mission of Surinam to the United Nations addressed to the Secretary-General
A/AC.187/64	Note verbale dated 30 June 1977 from the Permanent Representative of Sri Lanka to the United Nations addressed to the Secretary-General
A/AC.187/65	Note verbale dated 6 July 1977 from the Permanent Representative of Barbados to the United Nations addressed to the Secretary-General
A/AC.187/66	Note verbale dated 5 July 1977 from the Chargé d'Affaires a.i. of the Libyan Arab Jamahiriya to the United Nations addressed to the Secretary-General
A/AC.187/67	A brief synopsis of disarmament and arms limitation negotiations since 1945 - including their results - carried out within the framework of the United Nations, on a regional basis, or bilaterally, with indication, where appropriate, of the procedures followed to keep the United Nations informed - Working paper prepared by the Secretariat
A/AC.187/68	A comparative study of the scope originally proposed or aimed at in draft multilateral disarmament treaties of a universal character concluded under United Nations auspices and the scope finally fixed in those treaties, including the contemplated measures for expanding that scope - Working paper prepared by the Secretariat
A/AC.187/69	A comprehensive study of official proposals or declarations made and decisions taken by the General Assembly on the procedure of unilateral or negotiated moratoria as a provisional measure for the prohibition of nuclear-weapon tests, as well as their application by any State - Working paper prepared by the Secretariat

Document No.	Title
A/AC.187/70	A synthesis of the arguments adduced for and against each of the four proposals for the creation of nuclear-weapon-free zones that have been included in the General Assembly's agenda (Africa, South Asia, the Middle East and the South Pacific) and for and against the proposal for the establishment of a zone of peace in the Indian Ocean, including a subject and country index - Working paper prepared by the Secretariat
A/AC.187/71	A comprehensive study of the origin, development and present status of the various alternatives proposed for the prohibition of the use of nuclear weapons - Working paper prepared by the Secretariat
A/AC.187/72	An analytical summary of the United Nations studies describing the effects of the possible use of nuclear weapons, chemical weapons, bacteriological (biological) weapons and napalm and other incendiary weapons, as well as those dealing with the reduction of military budgets, with the economic and social consequences of the arms race and disarmament and with the relationship between disarmament and development - Working paper prepared by the Secretariat
	VOLUME V
A/AC.187/73	A comparative study of global military expenditures and development assistance since 1945 as stated in available official and unofficial sources - Background paper prepared by the Secretariat
A/AC.187/74 and Corr.1	Report on the human and material resources available to the United Nations Secretariat for its work on disarmament and the organization of that work - Working paper prepared by the Secretariat
A/AC.187/75 and Corr.1 and Corr.2	A list of disarmament and related proposals officially submitted to the United Nations - Background paper prepared by the Secretariat
A/AC.187/76	Views of delegations to the Preparatory Committee on the agenda and all other relevant questions relating to the special session of the General Assembly Devoted to Disarmament - Background paper prepared by the Secretariat
A/AC.187/77	Declaration on disarmament - Romania: working paper
A/AC.187/78	Programme of measures and action - Romania: working paper
A/AC.187/79	Negotiating machinery for disarmament problems - Romania: working paper
A/AC.187/80	Disarmament and development: proposal for a United Nations study - Denmark, Finland, Norway and Sweden: working paper
A/AC.187/81	Basic provisions of the declaration on disarmament - Bulgaria, Czechoslovakia, German Democratic Republic, Hungary, Mongolia, Poland, and USSR: working paper

Document No.	Title
A/AC.187/82	Basic provisions of the programme of action on disarmament - Bulgaria, Czechoslovakia, German Democratic Republic, Hungary, Poland and Union of Soviet Socialist Republics: working paper
A/AC.187/83	Public information activities in connexion with the special session of the General Assembly devoted to disarmament - Working paper prepared by the Secretariat
A/AC.187/84	Reply from the Government of Costa Rica to the letter from the Secretary-General of the United Nations concerning the special session of the General Assembly devoted to disarmament
A/AC.187/85	Note verbale dated 19 October 1977 from the Permanent Mission of Bahamas to the United Nations addressed to the Secretary-General
A/AC.187/86	Letter dated 9 December 1977 from the Permanent Representative of Japan to the United Nations addressed to the Secretary-General
A/AC.187/87	Working document containing a draft declaration on disarmament: Australia, Canada, Belgium, Denmark, Germany, Federal Republic of, Italy, Japan, Netherlands, Turkey and United Kingdom of Great Britain and Northern Ireland
A/AC.187/88	Provisional agenda (for meeting held on 24 January 1978)
A/AC.187/89 and Add.1	Outline of a draft final document of the special session of the General Assembly devoted to disarmament - Mexico: working paper
A/AC.187/90	Communiqué issued by the Office of the President of the French Republic, following the meeting of the Council of Ministers held on 25 January 1978, on the policy of France with regard to disarmament - France: working paper
A/AC.187/91	Declaration on disarmament - Pakistan: working paper
A/AC.187/92	Programme of action on disarmament - Pakistan: working paper
	VOLUME VI
A/AC.187/93/Rev.1 and Corr.1	Tabulation of proposals contained in the working papers submitted to the Preparatory Committee concerning the final document(s) of the special session of the General Assembly devoted to disarmament - Background paper prepared by the Secretariat
A/AC.187/94	Dissemination of information on the question of the armaments race and disarmament - Elements to be included in the preamble, the declaration and programme of action - Venezuela: working paper
A/AC.187/95	Elements for inclusion in the programme of action and in the documents relating to the machinery for disarmament negotiations - Sweden: working paper

Document No.	Title
A/AC.187/96	Draft programme of action - Australia, Belgium, Canada, Denmark, Germany, Federal Republic of, Italy, Japan, Netherlands, Norway and United Kingdom of Great Britain and Northern Ireland: working paper
A/AC.187/97	Suggestions for a disarmament programme - Italy: working paper
A/AC.187/98	Union of Soviet Socialist Republics: working paper
A/AC.187/99	Note verbale dated 13 January 1978 from the Permanent Representative of Senegal to the United Nations addressed to the Secretary-General
A/AC.187/100 and Corr.1	Tabulation of proposals contained in the working papers submitted to the Preparatory Committee concerning the final document(s) of the Special session of the General Assembly devoted to disarmament - Background paper prepared by the Secretariat
A/AC.187/101	Disarmament and verification - Austria: working paper
A/AC.187/102	Programme of action - Comprehensive Test Ban Treaty - Australia, Austria, Mexico, New Zealand, Sweden and Venezuela: working paper
A/AC.187/103	International machinery for disarmament - Australia, Canada, Denmark, Germany, Federal Republic of, New Zealand, Norway, and United Kingdom of Great Britain and Northern Ireland: working document
A/AC.187/104	Tabulation of proposals contained in the working papers submitted to the Preparatory Committee concerning the final document(s) of the special session of the General Assembly Devoted to Disarmament - Background paper prepared by the Secretariat
A/AC.187/105	Proposals of France for inclusion among the final draft document (declaration, programme of action, machinery for negotiations) of the special session of the General Assembly devoted to disarmament
A/AC.187/106	Provisional agenda (for meeting held on 4 April 1978)
A/AC.187/107	Working paper on organization and procedures of the Conference of the Committee on Disarmament submitted by the members of its Group of 15
A/AC.187/108	Study on the establishment of an international disarmament organization - Netherlands: working paper
A/AC.187/109	Disarmament and verification - Background paper prepared by the Secretariat
A/AC.187/110	Italy: working paper on international mechanisms for disarmament
A/AC.187/111	Draft introduction - Working paper by Mexico and Sweden

Document No.	Title
A/AC.187/112	Statement by Poland in connexion with the completion of the work of the Preparatory Committee for the special session of the General Assembly devoted to disarmament
A/AC.187/113	Statement by Yugoslavia in connexion with the completion of the work of the Preparatory Committee for the special session of the General Assembly devoted to disarmament
A/AC.187/114	Statement by the Union of Soviet Socialist Republics in connexion with the completion of the work of the Preparatory Committee for the special session of the General Assembly devoted to disarmament
A/AC.187/INF.2-7	Lists of communications concerning disarmament received from non-governmental organizations and research institutions (to be incorporated in A/INF/S-10/1)

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PREPARATORY COMMITTEE FOR THE SPECIAL SESSION OF THE GENERAL ASSEMBLY DEVOTED TO DISARMAMENT

Letter dated 6 May 1977 from the Foreign Secretary of Pakistan addressed to the Secretary-General

I have the honour to forward the enclosed views of the Government of Pakistan on the special session of the General Assembly on disarmament.

(Signed) Agha SHAHI
Foreign Secretary

VIEWS OF THE GOVERNMENT OF PAKISTAN ON THE SPECIAL SESSION OF THE GENERAL ASSEMBLY ON DISARMAMENT

SPECIAL SESSION SHOULD ACHIEVE CONCRETE AGREEMENTS ON DISARMAMENT

1. The Government of Pakistan attaches great importance to the success of the special session of the United Nations General Assembly on disarmament. However, the special session should not merely be another forum to discuss the broad aspects of disarmament. Mere declarations or resolutions would not mark a meaningful advance towards the disarmament goals established by the General Assembly but merely give an illusion of progress. The convening of the special session would be justified only if there is a real prospect of reaching concrete agreements on specific disarmament questions.

2. The work of the Preparatory Committee for the Special Session should be framed with the purpose of facilitating the adoption of concrete measures on the most important and pressing tasks in the field of disarmament. In this context, we would like to refer to document No. A/8191 dated 2 December 1970, sponsored by six countries, including Pakistan, on a comprehensive programme of disarmament. This document enumerates the most important tasks for achieving the ultimate goal of general and complete disarmament. Pakistan believes that the Preparatory Committee should first of all identify the priority tasks in the fields on which it is essential that progress should be made and then take the necessary steps for the conclusion of agreements in regard to them.

PRIORITY ISSUES TO BE CONSIDERED BY SPECIAL SESSION

3. The specific issues which Pakistan believes should be at the centre of the Preparatory Committee's deliberations are: conclusion of SALT agreements providing for deep cuts in nuclear weapons systems, a complete ban on chemical weapons, and a test ban treaty. Agreements must also be concluded on effective and binding security assurances to non-nuclear-weapon States against the use or threat of use of nuclear weapons, the establishment of nuclear-weapon-free zones and zones of peace, promotion of the peaceful uses of nuclear energy and technology, and the creation of a more effective machinery for disarmament negotiations.

STRATEGIC ARMAMENTS

4. Since the concept of security forms the core of the disarmament issue, a realistic programme for disarmament must begin with measures to create a climate of security in which States can begin to dismantle their preparations for war. Towards this end, the world must focus its attention on the more basic tasks in the field of disarmament i.e. preventing the further development and sophistication of nuclear weapons and delivery systems; immediate reduction of the existing level of armaments, especially nuclear armaments, and initiating moves towards their eventual destruction and complete elimination.

5. The drive towards these goals must stem firstly from the two super-Powers, which already enjoy a preponderant position of military power and, therefore, do not need to continue expanding their arsenals and improving their weapons. The non-participation of the other nuclear Powers in the disarmament negotiations need not deter the super-Powers from initiating positive action to create a climate of security, in which global disarmament might be achieved.

6. The arms race of the super-Powers and the already existing stockpiles of their nuclear arsenals pose an ever-present threat to international peace and security. It is their responsibility, as recognized in article VI of the Non-Proliferation Treaty, to reduce these arsenals and to create a climate of confidence in which the other States could be convinced to join in the efforts to promote global disarmament. Some measures were taken by the super-Powers, such as the SALT-I Agreement for a standstill on anti-ballistic missile systems and the Vladivostok Accords regarding a freeze on certain levels of strategic weapons. But SALT-I is to expire in a few months, the Vladivostok Agreements are yet to be confirmed in a SALT-II, and SALT-III - the phase of actual reductions - is not in sight.

7. Pakistan appreciates the desire expressed by the leaders of both the Soviet Union and the United States to make early progress in SALT talks. The Preparatory Committee should, therefore, encourage progress towards this goal and call on these nuclear super-Powers to reach agreement not only in regard to the present level of their nuclear arsenals but also for substantial reductions in these by next year.

8. Quantitative reductions in nuclear arsenals will not be fully meaningful unless they are accompanied by measures to prevent the further sophistication and improvement of nuclear weapons and their delivery systems as well as the development of new and more terrible weapons of mass destruction. In this context, the adoption of the Convention on Environmental Modification Techniques and the current examination of means to prohibit the development of new weapons of such destructive power are to be welcomed.

COMPREHENSIVE TEST BAN

9. For the immediate future, it is imperative to reach agreement on the prohibition of all nuclear-weapon tests so as to prevent the further development and sophistication of nuclear weapons as well as their horizontal proliferation. It is particularly unfortunate that such tests continue to be carried out. The Threshold Test Ban Treaty between the United States and the USSR has not restrained nuclear-weapon-tests; it may indeed have lent a measure of legitimacy to the conduct of testing below the 150 KT threshold.

10. Pakistan has sought the adoption of a ban on all nuclear-weapon-tests for many years. We believe that the prospects for an agreement on a test-ban treaty look somewhat brighter today. Hence, it is reasonable to hope that a general treaty for a nuclear-weapon-test-ban can be evolved this year and secure general support and endorsement at the special session of the General Assembly on disarmament.

11. The primary condition necessary for the success of such a treaty is that the two super-Powers should agree to suspend nuclear-weapon tests. Since they are

technologically far in advance of the other nuclear Powers, an immediate suspension of nuclear-weapon-tests by the two would in no way jeopardize their security. It would, at the same time, constitute a manifestation of their sincerity in seeking to halt the nuclear-arms race and induce the other nuclear-weapon-States to join in the general prohibition.

SECURITY ASSURANCES TO NON-NUCLEAR-WEAPON-STATES

12. An essential step in creating a suitable international climate for disarmament is to reassure the non-nuclear-weapon States against the threat or use of nuclear weapons. Unless their security is assured by credible and binding guarantees, the nuclear threat to them is bound to mount.

13. One of the main objectives of the special session should be, therefore, to promote an agreement on the question of security assurances to non-nuclear-weapon States. The formula for "negative" guarantees approved by the General Assembly at its last session (resolution 31/189) provides a most realistic basis for negotiations on this question. The resolution

> "invites the nuclear-weapon States, as a first step towards a complete ban on the use or threat of use of nuclear weapons to consider undertaking, without prejudice to their obligations arising from treaties establishing nuclear-weapon-free zones, not to use or threaten to use nuclear weapons against non-nuclear weapon States not parties to the nuclear security arrangements of some nuclear weapon powers".

This is a sufficiently flexible yet precise framework within which an agreement can be evolved for a binding undertaking by the nuclear Powers against the nuclear threat while at the same time accommodating what they consider to be their legitimate security interests and obligations. It is, therefore, Pakistan's conviction that urgent attention be given at the special session and in other relevant forums to elaborating an agreement for security assurances to non-nuclear-weapon States on the basis of the recommendation adopted by the General Assembly at its thirty-first session, as well as to the question of "positive" guarantees.

NUCLEAR-WEAPON-FREE ZONES

14. At the same time, Pakistan believes that the non-nuclear-weapon States must not depend solely on the great Powers to ensure their security in the nuclear era. Acting in a spirit of self-reliance, they should themselves take initiatives towards regional security measures against the nuclear threat emanating from within or outside their respective regions.

15. In view of what must be considered to be the failure of the Non-Proliferation Treaty to elicit a sufficiently wide measure of support, especially from the so-called "threshold nuclear powers", the establishment of nuclear-weapon-free zones provides the best available approach to prevent nuclear proliferation. There is increasing interest within the international community in the concept of

nuclear-weapon-free zones. The majority of States in various regions such as Africa, the Middle East, South Asia and the South Pacific, besides Latin America, have expressed their desire to denuclearize their respective regions. The General Assembly has responded to this desire by adopting resolutions urging the establishment of nuclear-weapon-free zones in these regions.

16. The special session should, therefore, address itself to the measures required to facilitate the implementation of these proposals for regional nuclear non-armament. While a comprehensive study has been conducted on this question, sufficient attention has not been paid to the underlying political reasons for the slow progress made towards the creation of denuclearized zones in the various regions where they have been proposed.

17. Some of the nuclear Powers and their allies insist that the prior agreement of all the regional States is necessary to achieve the objectives of denuclearization and that the creation of such zones should not prejudice existing security arrangements. These pre-conditions have operated to retard the creation of denuclearized zones in South Asia, the Middle East and Africa. The Government of Pakistan believes that if denuclearization is a desirable goal, it should be pursued and promoted regardless of the reservations of one or two regional States. Indeed, energetic efforts are expended to persuade countries to join the NPT despite their preoccupations about the lack of effectiveness of this Treaty. Such efforts would be more productive in the context of regional denuclearization. Furthermore, since denuclearization is obviously an accepted objective under the NPT, for all non-nuclear-weapon States, its achievement in any particular region cannot be contrary to "existing security arrangements".

18. Non-proliferation can hardly be achieved if the nuclear danger is brought to the very doorstep of the non-nuclear States of Africa, the Middle East and South Asia. It is hoped, therefore, that the nuclear Powers will take an active part in promoting the establishment of denuclearized zones in South Asia, the Middle East and Africa and exercise their influence to eliminate the obstacles created in the way of the implementation of these proposals by those States which entertain ambitions of nuclear Power status.

INTERNATIONAL CO-OPERATION FOR THE PEACEFUL USES OF NUCLEAR TECHNOLOGY

19. A number of decisions of the United Nations, including the NPT, have called for international co-operation for the peaceful uses of nuclear technology. While co-operation in this field has been expanded, this has been mainly among the industrialized States. At the same time, with the revalorization of oil prices, the potential of nuclear energy has assumed ever-increasing importance for the developing countries. The vast majority of these countries have yet to benefit from nuclear technology for their economic development.

20. In this context, the position taken by certain nuclear Powers in recent months, to restrict the dissemination of nuclear technology to the developing countries is cause for concern. The onerous pre-conditions advanced for peaceful nuclear co-operation and embargoes sought to be placed on the transfer of so-called

"sensitive" technologies, despite the application of effective international safeguards, are in contravention of the principle of State sovereignty. The dissemination of nuclear technology need not imply the proliferation of nuclear weapons if accompanied by adequate international safeguards. On the other hand, depriving developing countries of nuclear technology can, at best, be a partial and short-term answer to the problem of nuclear proliferation. It will induce these countries to develop technologies indigenously and outside of international controls. Moreover, the discriminatory restraint against developing countries is bound to exacerbate the existing difficulties in the relations between the industrialized and the poor nations of the world.

21. The only durable solution to the problem of nuclear proliferation lies in building a climate of trust and confidence in which nations do not feel the need to acquire nuclear weapons. At the same time, co-operation in the peaceful uses of nuclear technology should be expanded in accordance with universally agreed principles and safeguards to be evolved in open international forums in which both recipients and suppliers of nuclear technology are represented and not in exclusive meetings behind closed doors.

22. Further steps should also be envisaged to strengthen the IAEA as an organization which is called upon to play a vital role in the promotion and development of nuclear energy for peaceful purposes, as also in administering universal and effective safeguards to ensure non-proliferation of nuclear weapons. However, some of the in-built proclivities within the Agency, which tend to discriminate against recipient countries, should be eliminated.

23. All these matters need to be considered and a consensus evolved at the special session if the potential of nuclear technology is to be harnessed for the progress of all nations.

AN EFFECTIVE FORUM FOR DISARMAMENT NEGOTIATIONS

24. For many years, consideration has been given within the United Nations and in the CCD to the creation of an effective forum for disarmament negotiations. The short-comings of the CCD as a negotiating forum have been often pointed out. The most obvious defects of this body are firstly that it does not include the participation of two of the five nuclear Powers; and secondly, its deliberations are dependent on the initiatives of and agreements reached between the two co-chairmen with only a marginal role for the rest of the CCD's membership.

25. There are advantages and disadvantages in establishing a new forum for disarmament negotiations. Perhaps the most practical approach may be to secure certain reforms in the nature and procedures of the CCD to overcome its short-comings. The special session should give consideration to this matter and evolve an agreement on the machinery required to make more meaningful progress towards the goal of general and complete disarmament.

RESPONSIBILITIES OF THE PREPARATORY COMMITTEE

26. In organizing its work, the Preparatory Committee for the Special Session should focus its attention on substantive issues and not be led away into debating procedural questions alone or the adoption of anodyne resolutions. The first and perhaps most important task of the Committee is to establish the agenda for the special session. It is hoped that the suggestions made in the preceding paragraphs will be taken into account by the Committee when drawing up the questions to be considered at the special session. Having identified the issues which are to be addressed, the Preparatory Committee should simultaneously indicate the modalities and machinery through which concrete agreements and proposals on these issues are to be elaborated. For instance, it may wish to suggest that some questions, e.g. the CTB Convention should be elaborated within the CCD while the question of nuclear-weapon-free zones could be considered by a separate ad hoc group set up for the purpose. The Committee should decide on the organizational aspects of the special session after it has accomplished the first two tasks and only when the possibilities for concrete progress on various issues are clearer.

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PREPARATORY COMMITTEE FOR THE SPECIAL SESSION OF THE GENERAL ASSEMBLY DEVOTED TO DISARMAMENT

Note verbale dated 16 May 1977 from the Permanent Representative of Malaysia to the United Nations addressed to the Secretary-General

The Permanent Representative of Malaysia presents his compliments to the Secretary-General of the United Nations and with reference to the latter's note OR 421/6(3) dated 28 January 1977 regarding the convening of the special session of the General Assembly devoted to disarmament to be held in New York in May/June 1978, has the honour to transmit herewith the views of the Government of Malaysia.

Views of the Government of Malaysia

The Government of Malaysia has repeatedly expressed concern at the inherent dangers that the escalation of the arms race and the proliferation of nuclear weapons pose to the survival of mankind. It is very alarming to note that despite this internationally recoghized threat and potential for disaster, the arms race, both conventional and nuclear weapons, continues unabated. The Charter of the United Nations envisages disarmament as a means towards achieving international peace and security. Malaysia believes that international peace and security is essential in order to achieve economic progress and well-being for its people and for all mankind in general. Disarmament is an important move towards the attainment of this goal.

As a first step towards attaining global disarmament, the Government of Malaysia has always believed in the need for the creation of conditions that would be conducive to the relaxation of tension both at the regional and the international levels, the advancement of peaceful relations among all States and the promotion of regional as well as intraregional co-operation in all fields. This favourable climate would inevitably create an atmosphere of confidence in the world community that could help to generate progress in disarmament efforts towards halting and eventually eliminating the arms race. It would also give added impetus towards accelerating the creation of zones of peace and the establishment of nuclear-weapon-free zones which constitute positive steps towards the attainment of the goal of disarmament. The savings gained through the reduction of military expenditures devoted to the arms race could be constructively channelled to the much needed areas of national development in the developing countries. At the international level, the surplus resources in the developed countries arising from the reduction of their military expenditures could be utilized towards achieving an equitable international economic order.

Since the special session would be the first occasion that the question of disarmament would be considered in its entirety, full participation by all Member States of the United Nations is highly desirable to ensure success in concerting a co-operative approach towards achieving a comprehensive programme for general and complete disarmament under effective international control.

Malaysia considers that the agenda of the special session should include the following elements:

1. Consideration of practical measures towards curbing and eventually eliminating the nuclear arms race.

2. Co-operative approach to seek agreement for:

   (a) The cessation of all nuclear weapons tests with a view to concluding a comprehensive test ban treaty, a prompt cessation of research and development of new types of nuclear weapons and other non-nuclear weapons of mass destruction, the reduction and

elimination of existing arsenals of all nuclear weapons as well as chemical, biological weapons and other types of weapons of mass destruction.

(b) General prohibition of the use of nuclear weapons and non-use of force in the settlement of disputes.

3. Creation of favourable conditions towards bringing about the relaxation of tension and to advancement of peaceful relations that would be conducive to promoting common agreement in establishing nuclear-weapon-free zones and zones of peace.

4. Review of the role of the United Nations in the field of disarmament to enable the existing United Nations disarmament machinery to proceed in a more co-ordinated and efficient manner directed towards the realization of the goal of complete and general disarmament under effective international control.

5. Improved United Nations machinery to give widest dissemination to the potential dangers of nuclear weapons at all stages of disarmament.

In view of the need to ensure the total success of the special session, it would be useful to co-ordinate the task by assigning specific aspects of disarmament problems to a number of sub-committees or working groups so that agreement could be greatly facilitated. The Government of Malaysia considers it important that the special session should adopt a declaration of principles that reflect a renewed commitment by Member States of the United Nations towards general and complete disarmament as well as a programme of measures aimed at accelerating all disarmament efforts.

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PREPARATORY COMMITTEE FOR THE SPECIAL SESSION OF THE GENERAL ASSEMBLY DEVOTED TO DISARMAMENT

Draft agenda submitted by the Permanent Representative of Sri Lanka on behalf of the non-aligned members of the Preparatory Committee

1. Review and appraisal of the present international situation in the light of the pressing need to achieve substantial progress in the field of disarmament, the continuation of the arms race and the close interrelationship between disarmament, international peace and security and economic development.

2. Adoption of a declaration on disarmament.

3. Adoption of a programme of action on disarmament.

4. Review of the role of the United Nations in disarmament and of the international machinery for negotiations on disarmament, including, in particular, the question of convening a world disarmament conference.

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PREPARATORY COMMITTEE FOR THE SPECIAL SESSION OF THE GENERAL ASSEMBLY DEVOTED TO DISARMAMENT

Communication dated 18 May 1977 from the Permanent Representative of Sri Lanka to the United Nations and Chairman of the Co-ordinating Bureau of Non-Aligned Countries addressed to the Secretary-General

On behalf of the Co-ordinating Bureau of the Non-Aligned Countries, I have the honour to transmit herewith a working paper entitled "Some preliminary ideas concerning preparations for the Special Session of the General Assembly Devoted to Disarmament".

I would request you kindly to have the document published and circulated as a working paper of the Preparatory Committee for the Special Session of the General Assembly Devoted to Disarmament.

SOME PRELIMINARY IDEAS CONCERNING PREPARATIONS FOR THE SPECIAL SESSION OF THE GENERAL ASSEMBLY DEVOTED TO DISARMAMENT

1. INTRODUCTION

1. The Heads of State or Government of Non-Aligned Countries, at the Fifth Summit Conference in Colombo (16-19 August 1976) decided, inter alia, to call on the United Nations to convene a special session of the General Assembly devoted to disarmament. Accordingly, at the initiative of non-aligned countries, the General Assembly adopted resolution 31/189 B dated 21 December 1976 calling for a special session of the General Assembly for this purpose in May/June 1978.

2. The vitally important question of disarmament has been one of the central concerns of the non-aligned countries. At their First Summit held in Belgrade in 1961, they expressed the conviction that disarmament was an imperative need and a most urgent task of mankind and recommended, inter alia, convening a special session of the United Nations General Assembly to set in motion the process of general disarmament. The non-aligned countries have continued to make a notable contribution to the endeavours aimed at orienting disarmament negotiations towards solutions that would make it possible to achieve decisive progress toward genuine disarmament.

3. Since disarmament negotiations within the framework, or under the auspices of the United Nations, as well as the regional and bilateral negotiations have not produced the expected results in most cases, it is necessary to exert fresh efforts to overcome this situation. The contradiction between the urgent necessity to curb the arms race and the stand-still in disarmament efforts is becoming increasingly intolerable. Expenditure, particularly on the development of new and more sophisticated weapon systems is spiralling. The continuation of the arms race poses a direct threat to international peace and security and slackens economic and social development. Disarmament has thus become one of the most urgent international problems, requiring the greatest attention.

4. Therefore, the special session of the General Assembly dealing with disarmament will, in all probability, be the largest and most representative gathering ever convened to consider this question. The participation of all States in the disarmament discussions is generally seen as a necessary precondition for achieving progress on a global basis towards halting and eliminating the arms race and thus contributing to the establishment of a more just and equitable world order. There is, therefore, every reason to exert the greatest possible effort toward making the special session a genuine success and a landmark on the right path towards general and complete disarmament. It is universally recognized that disarmament is an extremely complex question. The hazards and perils of the arms race to the maintenance of international peace and security and the development and survival of mankind necessitate a serious effort to half and eventually eliminate this race.

5. The special session should reaffirm our commitment to general and complete disarmament, and to this effect, adopt a declaration of principles, a comprehensive programme of action and improve the disarmament machinery in order to reassert the responsibility of the United Nations and its central role in the field of disarmament.

6. In this endeavour, the aim of the non-aligned countries is to help bring about the relaxation of tension, to strengthen international peace and security and to encourage a substantial reduction in national expenditures for military purposes, so that resources could be reallocated for international development.

7. At the outset, the special session should undertake an authoritative appraisal of the current situation regarding disarmament problems, the causes which have led to stagnation and inadequate results of disarmament negotiations held so far, and the consequences and dangers that the arms race poses to peace and security and to development in the world. The special session of the General Assembly should also contribute toward strengthening the role of the United Nations and its over-all involvement in the field of disarmament and disarmament negotiations. In this respect, it should promote and elaborate a programme of priorities and measures whose gradual but consistent implementation would effectively bring about substantive changes in this field and ensure the beginning of the process of disarmament - particularly nuclear disarmament leading to general and complete disarmament, under effective international control.

8. Taking into consideration the importance of the special session as a significant event in the history of the United Nations, the non-aligned countries should continue to be in the forefront of this action. The special session must be very carefully and adequately planned so as to ensure that it is representative and effective, and that at the same time, the equality of States in the decision-making process is guaranteed. The intention of the non-aligned countries is to seek collaboration with all countries and endeavour to elaborate a joint policy and agree on a common approach in regard to fundamentals. The success and relevance of the special session is closely linked with the active participation of all Member States in its work at as high a level as possible. This conclusion is based on the fact that the halting of the arms race, its elimination as a threat to international peace and security and the release, for peaceful economic development, of the resources it consumes, is of cardinal interest to the international community.

II. DECLARATION OF PRINCIPLES

9. An assessment of disarmament efforts in the past three decades indicates that, despite some measures in the field of arms limitation, no real progress has been made on the crucial question of disarmament, and in particular concerning the nuclear arms race. It is therefore of paramount importance for the special session to adopt a declaration embodying a set of up-to-date principles as well as to work out a programme of priorities and measures dealing with all aspects of disarmament negotiations.

10. Such a document, however, should be drafted in general terms, so that the widest political support for its implementation may be secured. With this objective in mind, it seems essential not to lose sight of the political realities of our time which are of great significance in the field of disarmament. This prerequisite is of singular importance when dealing with questions affecting the national security and territorial integrity of Member States. None the less, it should not be construed in such a way as to curtail the endeavours of the non-aligned and other developing countries, particularly their rights to share, on an equal basis, in the access to modern nuclear technology for peaceful purposes.

11. The non-aligned countries have constantly considered that:

- Universal peace and security can be assured by general and complete disarmament (GCD), in particular nuclear disarmament, under effective international control, and that measures to that end should include the complete cessation of all nuclear weapon tests pending the conclusion of a test ban treaty, the elimination of arsenals of all nuclear weapons as well as other weapons of mass destruction, and an unequivocal renunciation of the use, or threat of use, of such weapons.

- The creation of zones of peace and, where appropriate, the creation of nuclear-weapon-free zones should be supported.

- Regional considerations in a nuclear-weapon-free zone may require that formal procedures and arrangements should be flexible and that there should be alternative ways and methods to suit the particular character of each zone. The nuclear-weapon States should undertake to respect nuclear-weapon-free zones and zones of peace and co-operation.

- The arms race is inconsistent with efforts aimed at achieving the new international economic order in view of the urgent need to divert the resources utilized for the acceleration of the arms race towards socio-economic development, particularly of the developing countries.

- Armaments are used in certain areas of the world to suppress the right to self-determination, freedom and independence of peoples under colonial, imperialist or any other form of alien domination, as well as their right to struggle to that end.

- A programme of agreed measures is an essential prerequisite for the opening of a process of genuine disarmament, in particular nuclear disarmament, and accomplishment of general and complete disarmament, under effective international control.

- Immediate prohibition of the production and stockpiling of all weapons of mass destruction, as well as the production and stockpiling of new weapons of mass destruction is an essential first step in halting the arms race.

- The dissolution of military blocs, great Power alliances and pacts arising therefrom, the dismantling of foreign military bases and withdrawal of military forces from foreign territories would contribute to this end.

- The cessation of all forms of foreign interference in the internal affairs of States.

12. The declaration should include new principles for disarmament negotiations, taking as a basis the principles already agreed upon, as well as the obligations undertaken by States in all international instruments related to disarmament and United Nations resolutions on the subject as well as any new ideas stemming from the debates during the special session.

13. The following principles, which though of a general nature, could provide a broad framework for the declaration of principles:

- Disarmament is an integral part of a new international order founded on national independence and international co-operation based on sovereign equality, non-interference in the internal affairs of States, mutual trust and justice, and renunciation of the policies of spheres of influence and domination.

- Highest priority should be given to measures of disarmament of nuclear, chemical and other weapons of mass destruction.

- The United Nations, which has specific responsibility for disarmament under the Charter, should participate in all efforts thereon.

- While disarmament is the responsibility of all States, full participation of all nuclear-weapon States in negotiations on nuclear disarmament should be secured.

- Neither the existing nuclear arsenals nor the addition of new and more sophisticated weapons of mass destruction ensure or strengthen national security.

- Given adequate safeguards, access to technology for the peaceful uses of nuclear energy should not be subjected to discriminatory restrictions, whether between nuclear-weapon and non-nuclear-weapon States or among non-nuclear-weapon States themselves.

- The need to intensify disarmament efforts and accelerate the pace of all disarmament negotiations thus contributing towards the relaxation of tension and the advancement of peaceful relations among all States.

- Negotiations on partial measures of disarmament should not preclude nor postpone negotiations on a treaty on general and complete disarmament.

- The principle of balanced disarmament should be kept in mind. It concerns both a numerical decrease of men in arms and types of arms to pre-fixed levels, as well as packages of disarmament measures by which an over-all balance is achieved which is judged by all parties to be satisfactory in the light of their own security. Particular efforts will have to be undertaken by military significant States in order to reduce the gap that exists between them and other countries.

- The ultimate elimination of conventional armaments can be achieved only within the framework of general and complete disarmament.

- Verification methods form an indispensable part of disarmament measures. A combination of several methods should be employed, mutually reinforcing one another in order to achieve the necessary assurances that a certain disarmament measure is being observed by all parties to such agreements.

- A substantial portion of the savings derived from measures in the field of disarmament should be devoted to promoting economic and social development, particularly in the developing countries.

- Public opinion should be given adequate information about armament and disarmament, so that it may bring its influence to bear on the strengthening of efforts.

III. PROGRAMME OF ACTION

14. Although the General Assembly has adopted general and complete disarmament under effective international control as a goal, disarmament negotiations are still conducted on a very narrow basis on selective issues of interest only to a very few countries. To overcome such a situation, a need for a programme of action on disarmament is widely felt.

15. The special session should agree on a programme of action on disarmament aimed at achieving tangible progress in order that the goal of general and complete disarmament, under effective international control, becomes a reality.

16. This programme of action would not constitute solutions or formal agreements to be adopted in the special session, but would provide for, on the basis of the activities of the United Nations, WDC, CCD and regional and bilateral negotiations, for gradual solution of individual questions within a reasonable time frame.

Elements of the programme

17. All efforts and negotiations should be geared in a balanced and integrated way and lead to general and complete disarmament under effective international control. The order of priorities in disarmament negotiations should be as follows:

1. Nuclear weapons
2. Chemical and biological weapons
3. Incendiary weapons
4. Other weapons of mass destruction
5. Other types of weapons
6. Reduction of armed forces.

18. The following measures should be urgently implemented in order to achieve prompt cessation of the arms race:

- Cessation of all nuclear-weapons tests
- Cessation of research and development of new types of nuclear weapons and weapon systems
- Cessation of production of fissionable material for military purposes
- Freeze on the deployment of all types of nuclear weapons
- Respect for the status of nuclear-weapon-free zones and zones of peace
- The prohibition of the development, production and stockpiling of chemical and biological weapons
- Prohibition of the use of incendiary weapons

- Prohibition of the development and manufacture of new types of non-nuclear weapons of mass destruction and new systems of such weapons

- Prohibition of the creation of new foreign military bases and the stationing of troops and military equipment in foreign territories.

19. The following measures should also be implemented as concrete steps within the programme of action for disarmament:

- Gradual reduction and elimination of nuclear weapons

- Destruction of chemical and biological weapons

- Elimination of incendiary weapons

- Elimination of all types of non-nuclear weapons of mass destruction and new systems of such weapons

- Complete withdrawal of foreign troops and military bases

- Gradual reduction of other types of weapons and armed forces

- Gradual reduction of armed forces.

20. Besides the measures concerned with cessation of the arms race and disarmament, the possibility of adopting other collateral measures, particularly those concerned with the strengthening of international peace and security and the relaxation of tensions should be considered. It is a recognized fact that there is a close interrelationship between disarmament, international peace and security and the peaceful settlement of disputes.

21. In this context, the following measures should be considered:

- The renunciation or prohibition of the use, or the threat of use of nuclear weapons against non-nuclear-weapon States

- The non-use of force, or threat of use of force in any of its manifestations

- The general prohibition of the use of nuclear weapons

- Convening of regional conferences at the initiative of the States of the region for reduction of armaments and armed forces

- The creation of nuclear-weapon-free zones and zones of peace

- The reduction of military expenditures.

22. During the period of the negotiations on disarmament measures, there should be parallel negotiations in the appropriate fora for the establishment and

development of United Nations peace-keeping machinery and procedures in order to increase and ensure the maintenance of international peace and security.

23. The General Assembly should consider annually the progress made in the implementation of the programme of action. This will entail an evaluation of the over-all situation in the field of disarmament. A special periodical review by the United Nations General Assembly or a WDC will allow an assessment and appraisal of the strategy for disarmament and revise it as warranted.

IV. MACHINERY FOR DISARMAMENT

24. In addition to the well-known causes which have led to the current stagnation in the field of disarmament, the inadequacy of the existing disarmament machinery should be underlined. Therefore, the special session should make every effort to ensure the full implementation of the programme of action through the strengthening of the central role of the United Nations in the disarmament process.

25. While the principal political decision-making organ of the United Nations should continue to be the General Assembly, with one of its main committees entrusted solely to deal with disarmament questions, the necessity remains for an efficient multilateral body to negotiate specific disarmament measures.

26. Since its establishment in 1961, the body that is now known as the CCD has accumulated considerable experience but has not produced commensurate results. This may partly be due to the fact that its endeavours have been mainly devoted to partial or collateral aspects of the problem, resulting merely in arms control or arms limitations agreements. Therefore, the time seems ripe for the special session to devote attention to improving the structure and working methods of the CCD.

27. It would be of primary importance to revise the membership of the CCD and to ensure de jure full member status to all nuclear-weapon States in it. Also, in order to enable their actual participation in its work, it would be necessary to introduce, without delay, certain changes in the CCD's organization and procedures, and particularly the present system of co-chairmanship.

28. Furthermore, to enhance the ultimate responsibility that the United Nations General Assembly bears for disarmament, an organic link with the CCD should be established.

29. The special session may consider the future role of the United Nations Disarmament Commission.

30. The role of the United Nations Centre for Disarmament may be considered in the light of the future activities of the United Nations in the field of disarmament.

31. The special session should also consider the question of convening of a WDC.

V. AGENDA AND ORGANIZATION OF WORK

32. Agenda:

(a) Review and appraisal of the present international situation in the light of the stagnation in the field of disarmament, the continuing of the arms race and close interrelationship between disarmament, international peace and security and economic development

(b) Adoption of a Declaration of Principles on Disarmament

(c) Adoption of a Programme of Action on Disarmament

(d) Review of the role of the United Nations in disarmament, of disarmament mechanisms, including the question of convening a World Disarmament Conference

33. Level of representation: The non-aligned countries consider that the special session should be held at as high a political level as possible.

34. Organization of the work: It may be necessary to convene one or more committees, to meet simultaneously with the plenary of the special session.

New York, 31 March 1977

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PREPARATORY COMMITTEE FOR THE SPECIAL SESSION OF THE GENERAL ASSEMBLY DEVOTED TO DISARMAMENT

SPECIAL SESSION OF THE GENERAL ASSEMBLY DEVOTED TO DISARMAMENT: NON-ALIGNED WORKING DOCUMENT CONTAINING THE DRAFT DECLARATION, PROGRAMME OF ACTION AND MACHINERY FOR IMPLEMENTATION

DECLARATION ON DISARMAMENT

The Member States of the United Nations,

Alarmed by the threat to the very survival of mankind posed by the existence of weapons of mass destruction, particularly nuclear weapons;

Convinced that global catastrophe can only be averted by arresting and reversing the arms race and by the final elimination of all nuclear weapons and other means of mass destruction;

Convinced also that international peace as well as the security of all nations cannot be maintained on the precarious basis of mutual deterrence through an ever escalating arms race and that a true climate of peace can only be created through the effective implementation of the security system as provided for in the Charter of the United Nations and the speedy and substantial reduction of armaments and armed forces by mutual example and international agreement;

Convinced further that the realization of the purposes and principles of the Charter of the United Nations are jeopardized by the arms race and that the vast resources now being wasted in the arms race must be channelled for the betterment of mankind through economic and social development;

Mindful of the role of the United Nations in the field of disarmament and in the maintenance of international peace and security in accordance with the provisions of the Charter and determined to strengthen that role;

Conscious that the peace of the world depends on concerted action to achieve disarmament and to eliminate the danger of war;

DECLARE:

I. Mankind today is confronted with an unprecedented threat of self-extinction on account of the massive and competitive accumulation of the most destructive weapons man has ever produced. Existing arsenals of nuclear weapons alone, at the disposal of only a few States, are sufficient to destroy all life on earth several times over. Yet the arms race, particularly the nuclear arms race, is continuing unabated. This situation not only jeopardizes the peace and security of all States, but acts as a stimulating factor for the persistence of international tensions and conflicts in various regions of the world, aggravates existing differences among nuclear-weapons States, consolidates military alliances and brings ever nearer the threat of a nuclear confrontation for which nuclear-weapons States are in an ever-increasing stage of readiness.

II. Furthermore, the arms race, which is both the cause and result of great Power rivalry, impedes the realization of the objectives of the United Nations Charter, especially those relating to the respect for sovereignty, the refraining from the threat or use of force against the territorial integrity or political independence of any State, the peaceful settlement of disputes, and non-interference in the internal affairs of States, and adversely affects the right of peoples to freely determine their systems of social and economic development, the struggle of peoples against colonial rule, racial or foreign domination or occupation.

III. Military expenditures have reached the staggering figure of about $400 billion a year, the highest percentage of which can be attributed to nuclear-weapons States and their allies, with prospects of further expansion and the danger of increasing expenditure spreading to other countries. Vast human, natural, scientific, technological and financial resources are thus wasted in the preparation for war, when these resources could be channelled to eradicate hunger, disease and other pressing economic and social problems hampering development in many parts of the world.

IV. Disarmament has thus become the most urgent international objective. However, no real progress has been made in this crucial field. Agreements that have been reached so far relate only to measures of limited restraint, but have not slowed the pace of the arms race, the only genuine disarmament agreement having been the Convention on the Prohibition of the Development, Production, and Stockpiling of Bacteriological (Biological) and Toxic Weapons and their Destruction. Negotiations for general and complete disarmament have been virtually abandoned for more than a decade.

V. General and complete disarmament under effective international control remains the ultimate goal of the international community. The realization of this goal should be resolutely pursued through the United Nations Organization, or under its auspices, on a bilateral or multilateral basis, or within the framework of regional or other international fora, by all States, particularly by the nuclear-weapons States.

VI. Progress towards this objective would require the conclusion and implementation of agreements on genuine measures of disarmament according to the Programme of Action on Disarmament, the first priority of which shall be the

outlawing of nuclear war, and the elimination of nuclear weapons, which pose the greatest threat to the survival of mankind. High priority must also be given to disarmament measures relating to all types of weapons of mass destruction, including chemical weapons. Conventional weapons which give cause for grave concern should also be the object of disarmament agreements in the context of general and complete disarmament.

VII. Other measures in the field of disarmament, confidence building, and improvement of the machinery for the peaceful settlement of disputes could significantly contribute to the lessening of international tensions and to the creation of a situation conducive to the adoption of additional disarmament measures. Such measures as the prohibition of the use of nuclear weapons and the cessation of production of fissionable material for weapons purposes should be undertaken forthwith. Other measures, including relevant regional agreements and the progressive reduction of military expenditures should be undertaken as soon as possible. The creation of nuclear-weapon-free zones and zones of peace constitute one of the most effective disarmament measures within the reach of those States which do not possess nuclear weapons. Regional considerations in a particular area may require that formal procedures and arrangements to establish nuclear-weapon-free zones should be flexible and that there should be alternative ways and methods to suit the particular character of each zone.

VIII. There is a direct link between disarmament and international peace and security since the latter cannot be built on the accumulation of weaponry nor be sustained by military alliances and doctrines of strategic superiority or of deterrence. Furthermore, the existing nuclear arsenals and the addition of new and more sophisticated weapons of mass destruction do not ensure or strengthen national security.

IX. There is also an integral link between disarmament and development. The spiralling arms race and the resulting waste of resources are incompatible with the need for accelerated economic and social development and for the establishment of the New International Economic Order. Nevertheless progress in one of these areas should not be contingent upon progress in the other.

X. Since the contradiction between the urgent necessity to curb the arms race and stagnation in disarmament efforts is becoming increasingly intolerable, it is imperative for all States to exert fresh efforts to overcome this situation and to review and improve the existing machinery for disarmament negotiations.

XI. Disarmament negotiations shall be guided by the following principles:

(1) All States have the right and the duty to contribute to efforts in the field of disarmament and to participate in disarmament negotiations on an equal footing. While disarmament is the responsibility of all States, the nuclear-weapons States have the primary responsibility for halting and reversing the arms race. In this context, significant unilateral initiatives should be urgently undertaken by them in order to promote reciprocal restraint and accelerate the whole process of disarmament.

(2) The adoption of disarmament measures should take place in a balanced manner, both quantitatively and qualitatively, so that no individual State or group of States obtain advantage over others.

(3) A mutually acceptable balance of rights and obligations between nuclear-weapons States and non-nuclear-weapons States should be strictly observed.

(4) Verification forms an indispensable part of disarmament measures. A single method of verification is rarely sufficient. A combination of methods could be devised, thus providing adequate means of verification of the implementation of disarmament measures.

(5) Nuclear-weapons States shall undertake by means of a legally binding international instrument to respect the statutes of nuclear-weapon-free zones or zones of peace.

(6) A substantial part of the resources released as a result of disarmament measures should be primarily devoted to social and economic development, particularly that of the developing countries.

(7) The United Nations, in accordance with its Charter, has the primary role and responsibility in the field of disarmament. In order to effectively discharge this role, the United Nations shall be kept duly informed of all disarmament steps taken outside its aegis.

(8) Measures of disarmament shall not be construed in such a way as to hamper the exercise of the right of all States to develop or to acquire without any discrimination nuclear technology or nuclear materials for peaceful purposes. Access to such technology and materials should be subjected to universal, standardized and non-discriminatory safeguards agreed upon by supplier and recipient States.

XII. Since prompt measures should be taken in order to arrest and reverse the arms race, Member States commit themselves to comply with the above-stated principles and faithfully and thoroughly implement the following Programme of Action.

PROGRAMME OF ACTION ON DISARMAMENT

The Programme of Action contains priorities and measures in the field of disarmament that States should undertake as a matter of urgency with a view to halting the arms race and starting the process of genuine disarmament leading towards the achievement of general and complete disarmament under effective international control.

(I) PRIORITIES IN THE FIELD OF DISARMAMENT

The order of priorities in disarmament negotiations shall be as follows:

1. Nuclear weapons

2. Chemical weapons

3. Incendiary weapons

4. Other weapons of mass destruction

5. Conventional weapons

6. Reduction of armed forces

1. Nuclear weapons

(a) Prohibition of the use and as a first step, renunciation of nuclear weapons against States which have no nuclear weapons on their territories.

(b) Renunciation of the first use of nuclear weapons.

(c) The reduction of stockpiles of nuclear weapons and their means of delivery leading to their complete elimination constitutes an indispensable step towards avoidance of the danger of nuclear war and the setting in motion of the process of disarmament.

(d) The immediate conclusion of a treaty on the complete ban of nuclear-weapon tests is a most important task, and responsibility in this regard rests with the nuclear-weapons States.

(e) The immediate cessation of the production of nuclear weapons and of fissionable material for weapon purposes.

(f) Urgent steps also are:

- cessation of research and development of new types and systems of nuclear weapons and their means of delivery and guidance,

- freezing of the qualitative improvement of existing nuclear weapons and delivery systems,

- prevention of proliferation of such weapons and systems.

The two leading nuclear-weapons States bear a particular responsibility with regard to the realization of the above measures, while the other nuclear-weapons States, as well as militarily significant States should contribute towards the attainment of these objectives.

/...

(g) Other measures:

(i) Establishment of nuclear-weapon-free zones and zones of peace in various regions of the world on the basis of arrangements among States of such regions. Respect by nuclear-weapons States of these zones and the statutes thereof by means of legally binding international instruments that include the obligation to refrain from the use or threat of use of nuclear weapons against the States included in such zones. The process of establishing such zones should be encouraged with the ultimate objective of achieving a world entirely free of nuclear weapons.

(ii) The status of the Indian Ocean as a zone of peace should be respected by all States, particularly by nuclear-weapons States and the major maritime users. In addition it would be desirable to create zones of peace in the region of the Mediterranean and wherever feasible.

(iii) The formulation of an international convention on the non-use of nuclear and other weapons of mass destruction, pending their final elimination.

2. Chemical weapons

The complete prohibition of the development, production and stockpiling of all chemical weapons and their destruction represent one of the most urgent measures of disarmament. Consequently, conclusion of a treaty on the effective prohibition of the development, production and stockpiling of all chemical weapons and of their destruction is one of the most urgent tasks of multilateral negotiations.

3. Incendiary weapons and other specific conventional weapons with especially inhuman effects

The reaching of agreement on the prohibition or limitation of the use of napalm and other incendiary weapons as well as use of specific types of conventional weapons which are deemed to be excessively injurious or to have indiscriminate effects, constitutes an urgent task. All States are called upon to contribute towards carrying out this task as provided for in the General Assembly resolution convening the United Nations Conference in 1979.

4. Other weapons of mass destruction

Conclusion of a treaty on the comprehensive prohibition of the development and production of new types of weapons of mass destruction and new systems of such weapons.

5. Conventional weapons

(a) Prohibition of the development, production and deployment of new types of conventional weapons and new systems of such weapons;

(b) The limitation and gradual reduction of conventional weapons on a global basis should be resolutely pursued in the context of general and complete

/...

disarmament. The limitation and reduction of armaments and armed forces in Europe would constitute a significant step for the attainment of that goal. The States participating in negotiations on such measures in central Europe should therefore exert all efforts for the purpose of concluding, as soon as possible, an agreement on the limitation and reduction of armaments and armed forces in that region.

6. Reduction of armed forces

The reduction of armed forces of States to levels necessary for the maintenance of internal order and fulfilment of obligations of States with regard to the safeguarding of international peace shall take place within the context of general and complete disarmament.

* * *

Implementation of these priorities should lead to general and complete disarmament under effective international control, which remains the ultimate goal of all efforts exerted in the field of disarmament. Negotiations on general and complete disarmament shall be conducted concurrently with negotiations on partial measures of disarmament. With this purpose in mind, the following measures shall be taken as a matter of urgency:

(a) Elaboration of a comprehensive programme of disarmament measures which would lead to the attainment of general and complete disarmament;

(b) Establishment of a special committee of the United Nations for the elaboration of the comprehensive programme of disarmament measures to be submitted to the thirty-fifth regular session of the General Assembly in 1980 at the latest.

(II) CONFIDENCE-BUILDING MEASURES

Solemn pledge by States to strictly observe the principle of non-use of force or threat of force in any form against the sovereignty, independence and territorial integrity of States would contribute to create a climate of confidence among States, and it should be accompanied by measures such as:

(a) Prohibition of the establishment of new foreign military bases and stationing of troops in foreign territories;

(b) Withdrawal of foreign troops and dismantling of foreign military bases;

(c) Freezing and gradual reduction of military budgets of States, particularly those of nuclear-weapons States and other militarily significant States;

(d) Submission of reports to the United Nations by States of their military expenditures on a standardized basis.

(III) CHANNELLING OF RESOURCES RELEASED THROUGH DISARMAMENT MEASURES

Elaboration of a system of reporting to the United Nations on the resources released through the reduction of military expenditures as a result of disarmament measures, and of a set of principles for channelling of such resources for development purposes, taking particularly into account the needs of developing countries.

(IV) GUIDELINES FOR THE IMPLEMENTATION OF THE PROGRAMME OF ACTION

(a) All States, in particular the nuclear-weapons States, are called to contribute to the implementation of the Programme of Action;

(b) Specific measures of the Programme of Action shall be implemented by individual States or groups of States which may conduct, for this purpose, bilateral or multilateral negotiations and shall inform the United Nations of the results thereof;

(c) These measures shall be implemented in accordance with the above-mentioned priorities, bearing in mind the necessity to conduct, whenever possible, parallel negotiations on several measures with a view to reaching agreement on each of them as soon as possible;

(d) Implementation should be in an agreed sequence, by stages, with each measure and stage carried out within specified time-limits, the entire process being completed not later than the end of the next decade;

(e) Implementation of disarmament measures should be facilitated by the speeding up of the process of resolving outstanding problems and disputes which threaten international peace and security. This should include application, where appropriate, of the relevant provisions of the Charter of the United Nations.

MACHINERY FOR DISARMAMENT NEGOTIATIONS

The United Nations has, under the Charter, a primary role and responsibility in the sphere of disarmament. Accordingly the General Assembly should exert utmost efforts to ensure the observance of the principles embodied in the Declaration on Disarmament and the full implementation of the Programme of Action on Disarmament. To this end it is essential that:

(a) The General Assembly remains the main political decision-making organ of the United Nations in the field of disarmament and will be responsible for monitoring the implementation of disarmament measures;

(b) The First Political Committee of the General Assembly deal in the future only with questions of disarmament and international security;

/...

(c) An organic link be established between the General Assembly and the Conference of the Committee on Disarmament, currently the main body for multilateral negotiations on disarmament. For this purpose it is necessary that:

(i) All Member States of the United Nations may submit directly proposals on measures of disarmament that are the subject of negotiations in the CCD and attend meetings of the working bodies thereof whenever such a proposal or proposals are examined;

(ii) The representative of the Secretary-General and the Centre for Disarmament of the United Nations be assigned an enhanced role in the CCD;

(d) The revie of the present composition of the CCD and the creation of the necessary conditions for the participation of all nuclear-weapons States in the work thereof be made;

(e) The CCD be presided by a chairman on the basis of monthly rotation;

(f) The CCD adopt its rules of procedure.

UNITED NATIONS

GENERAL ASSEMBLY

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25 January 1978

ENGLISH ONLY

PREPARATORY COMMITTEE FOR THE SPECIAL SESSION OF THE GENERAL ASSEMBLY DEVOTED TO DISARMAMENT

SPECIAL SESSION OF THE GENERAL ASSEMBLY DEVOTED TO DISARMAMENT: NON-ALIGNED WORKING DOCUMENT CONTAINING THE DRAFT DECLARATION, PROGRAMME OF ACTION AND MACHINERY FOR IMPLEMENTATION

DECLARATION ON DISARMAMENT

Corrigendum

1. On page 5, under section (I), subparagraph (a) should read as follows:

"(a) Prohibition of the use and as a first step, renunciation of the use of nuclear weapons against States which have no nuclear weapons on their territories."

2. On page 8, under section (IV), subparagraph (e) should read as follows:

"(e) Implementation of disarmament measures should be facilitated by the speeding up of the processes of resolving outstanding problems ..."

78-01655

UNITED NATIONS

GENERAL ASSEMBLY

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PREPARATORY COMMITTEE FOR THE SPECIAL SESSION OF THE GENERAL ASSEMBLY DEVOTED TO DISARMAMENT

SPECIAL SESSION OF THE GENERAL ASSEMBLY DEVOTED TO DISARMAMENT: NON-ALIGNED WORKING DOCUMENT CONTAINING THE DRAFT DECLARATION, PROGRAMME OF ACTION AND MACHINERY FOR IMPLEMENTATION

DECLARATION ON DISARMAMENT

Corrigendum

Page 4: after paragraph (5) add

(6) The maintenance of foreign military bases and the presence of foreign military troops on the territory of a State represents a permanent threat to the establishment of genuine and effective national and regional security and therefore to the strengthening of international peace and security.

and renumber subsequent paragraphs accordingly.

Page 6: at the end of paragraph (g) (i) add In appropriate cases, the effectiveness of nuclear-weapon-free zones could be enhanced by the dismantling of all foreign military bases and by not subjecting any State in the region to acts of aggression.

Page 9: after paragraph (f) add

(g) At an appropriate time a world disarmament conference could be convened with universal participation and with adequate preparation.

78-02367

UNITED NATIONS

GENERAL ASSEMBLY

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24 May 1977
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ORIGINAL: SPANISH

PREPARATORY COMMITTEE FOR THE SPECIAL SESSION OF THE GENERAL ASSEMBLY DEVOTED TO DISARMAMENT

Some fundamental principles and norms for possible inclusion in the "Declaration on Disarmament" envisaged in the draft agenda of the special session of the General Assembly devoted to disarmament, approved by the Preparatory Committee on 18 May 1977

Mexico: working paper

- All the peoples of the world have a vital interest in the success of disarmament negotiations.

- General and complete disarmament under effective international control should be the final objective of mankind.

- Gradual progress towards this objective requires the conclusion of partial agreements and authentic measures for disarmament.

- The progressive reduction of nuclear weapons until their total elimination has been achieved should have the highest priority among such measures.

- The reduction and elimination of the other weapons of mass destruction deserve also a high priority.

- The development, production and stockpiling of napalm and other incendiary weapons must be prohibited, and those existing in the arsenals of all States should be destroyed.

- The international transfer of conventional weapons should be limited and regulated.

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* Reissued for technical reasons.

- International verification constitutes an indispensable part for many of the disarmament measures. The use of a combination of various methods of verification offers the best guarantee.

- The adoption of the disarmament measures should take place in a balanced manner so as not to endanger the security of any State.

- The creation of nuclear-free zones and zones of peace constitutes one of the most effective disarmament measures within the reach of those States which do not possess nuclear weapons.

- Nuclear-weapon States must fulfil faithfully the obligations which, in accordance with the definition approved by the General Assembly, they have with regard to the nuclear-free zones and the States included in such zones.

- The reduction of the military budgets of the permanent members of the Security Council and other militarily important States would constitute a laudable measure of disarmament.

- There is a close relationship between disarmament and international peace and security, on the one hand, and disarmament and development on the other. Nevertheless, progress in one of those spheres must not be subordinated to progress in the other or vice versa.

- The growing arms race and the resultant waste of resources are incompatible with the decisions of the United Nations aimed at the consolidation of a New International Economic Order based on justice and equity.

- A considerable part of the resources freed by the adoption of disarmament measures should be devoted mainly to the promotion of the economic and social development of the developing countries.

- It is necessary to have an acceptable balance of mutual responsibilities and obligations for nuclear and non-nuclear-weapon States.

- The proliferation of nuclear weapons could endanger the security of all States and would make it even more difficult to achieve general and complete disarmament under effective international control.

- Access to nuclear technology for peaceful purposes constitutes an inalienable right of all States which is subject only to the limitations derived from the relevant provisions incorporated in multilateral instruments designed to prevent the proliferation of nuclear weapons.

- Conditions should be established for the utilization of nuclear energy for peaceful purposes which contribute to the elimination of the gap separating the developed from the developing countries.

- In accordance with its Charter and innumerable resolutions of the General Assembly, the United Nations has a primary role and responsibility in the sphere of disarmament.

/...

- The former requires that the General Assembly be kept duly informed regarding all steps taken in the sphere of disarmament, whether unilateral, bilateral, regional or multilateral.

- The deliberative machinery of the United Nations should be reinforced through the institutionalization of a world disarmament conference on terms acceptable for all Member States.

- The organization and procedures of the Conference of the Committee on Disarmament should be subject to the modifications deemed appropriate for the participation by China and France in its work.

- World public opinion should receive adequate information on the progress of work on disarmament, so that it may exercise its influence for the reintensification of efforts aimed at obtaining positive results in this field.

- Non-governmental organizations recognized by the United Nations should have at their disposal all the documentation necessary for them to carry out their complementary work effectively.

UNITED NATIONS

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31 May 1977

ORIGINAL: ENGLISH

PREPARATORY COMMITTEE FOR
THE SPECIAL SESSION OF THE
GENERAL ASSEMBLY DEVOTED TO
DISARMAMENT

Note verbale dated 25 May 1977 from the Permanent Mission of the Philippines to the United Nations addressed to the Secretary-General

The Philippines, in supporting the concept of a special session of the General Assembly devoted to disarmament, strongly endorses the convening of said special session in May-June 1978.

The Philippines believes that after 30 years of consideration of the issue of disarmament by the United Nations, time has come indeed to take concerted measures in order to achieve the over-all objective of disarmament. The special session is an approach that could open avenues to achieving a programme of gradual and balanced disarmament measures which ultimately would lead to general and complete disarmament. In other words, now is the time for the super-Powers and the major military Powers to give proof of sincere political will in co-ordinated and co-operative efforts towards resolving disarmament issues.

The special session should be able to adopt a declaration of principles on disarmament coupled with a programme of action in the implementation of said principles. In this connexion, and in so far as the Philippines is concerned, like many others, nuclear disarmament is number one in importance and should be given the highest priority. We cannot conceive or envisage a peaceful world in which nuclear weapons exist. The imponderables of power politics are such that the risk and danger of a nuclear exchange is ever present as long as there are nuclear weapons. The escalation to an all-out nuclear war is not far-fetched due to the use and sophistication of nuclear warheads in both tactical and strategic weapons.

To achieve nuclear disarmament, all the world knows that there are three essential steps to be taken: (1) the total and absolute cessation of nuclear weapons testing; (2) a complete shut-down of nuclear weapons production; and (3) the destruction of all existing nuclear weaponry.

As mentioned above, the ultimate objective is general and complete disarmament. But to our mind, if the essential steps and measures are agreed upon towards nuclear disarmament, it would pave the way towards parallel steps and measures towards the goal of general and complete disarmament. It is our hope that the special session can find the framework and the priorities towards this end.

The special session, to be a success, should be well prepared and should be approached by all interested parties with no reservations or pre-conditions. All Members of the United Nations should whole-heartedly and actively participate in the special session. It is obvious to us that the success of the special session will spell a greater and more meaningful role for the United Nations in the field of disarmament.

UNITED NATIONS

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1 June 1977

ORIGINAL: ENGLISH

PREPARATORY COMMITTEE FOR THE SPECIAL SESSION OF THE GENERAL ASSEMBLY DEVOTED TO DISARMAMENT

Letter dated 27 May 1977 from the Permanent Representative of Qatar to the United Nations addressed to the Secretary-General

With reference to your note No. OA 421/6(3) dated 28 January 1976, I have the honour to enclose herewith a copy of Qatar's views and all other relevant questions relating to the special session of the General Assembly devoted to disarmament.

(Signed) Jasim Y. JAMAL
Ambassador
Permanent Representative of the State
of Qatar to the United Nations

VIEWS OF THE GOVERNMENT OF THE STATE OF QATAR CONCERNING THE AGENDA AND OTHER RELEVANT QUESTIONS RELATING TO THE SPECIAL SESSION OF THE GENERAL ASSEMBLY DEVOTED TO DISARMAMENT

The State of Qatar has consistently and repeatedly supported the convening of an international conference devoted exclusively to the problems of disarmament and where all nuclear and non-nuclear countries can participate on equal footing in accordance with the principles of the Disarmament Decade.

Qatar believes that the mass production of chemical, biological and incendiary weapons and napalm and the use of such weapons must come to a halt and the special session must adopt a programme of action prohibiting the manufacture of these dangerous weapons.

Qatar also believes that zones of peace and nuclear-weapon-free zones should be created in order to lay the foundations for international peace and security. Qatar attaches great importance particularly on the creation of nuclear-weapon-free zones in the Middle East and in the Indian Ocean. The United Nations in its Special Session on Disarmament and all States are duty bound to exert all possible means on Israel which has been rejecting the signature and adherence to the Non-Proliferation Treaty. It is indispensable that all parties concerned in the area proclaim solemnly and immediately their intention to refrain from producing, testing, obtaining, acquiring or in any other way, possessing nuclear weapons, and call upon parties concerned in the area to accede to the Non-Proliferation Treaty.

Qatar has repeatedly supported the Declaration of the Indian Ocean as a zone of peace, free of all foreign military bases, whether air or naval, in the territory of the littoral countries or islands of the Indian Ocean, to contribute to the security of the whole world. For the same reasons, Qatar also supports the establishment of nuclear-weapon-free zones in South Asia, the South Pacific and Latin America.

Moreover, Qatar believes that the Special Session on Disarmament should seek to safeguard sovereignty - independence and territorial integrity of all States, as well as sovereignty over their natural resources.

As a member of the Non-Aligned Movement, Qatar is determined to contribute positively toward the success of the special session which should constitute an important step toward bringing about a complete and general disarmament under international control.

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7 June 1977

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PREPARATORY COMMITTEE FOR THE SPECIAL
SESSION OF THE GENERAL ASSEMBLY
DEVOTED TO DISARMAMENT

Note verbale dated 2 June 1977 from the Chargé d'Affaires a.i. of Portugal to the United Nations addressed to the Secretary-General

The Chargé d'Affaires a.i. of Portugal to the United Nations presents his compliments to the Secretary-General of the United Nations and has the honour to transmit herewith the views of the Government of Portugal in response to His Excellency's note OR 421/6(3) dated 28 January 1977 regarding the convocation of a special session of the General Assembly devoted to disarmament.

Suggestions of the Portuguese Government regarding the special session of the General Assembly devoted to disarmament

The Portuguese Government supports the convocation of a special session of the United Nations General Assembly devoted to disarmament, as proposed in paragraph 1 of resolution 31/189 B of the thirty-first session of the General Assembly. Such initiative meets the concerns repeatedly expressed by the Portuguese Government regarding the increasing armaments race that has been taking place since the Second World War and that has led to the waste of non-renewable resources and technical knowledge extremely necessary for the progress of mankind.

However, the changes that have been taking place in international relations during past years create renewed hopes in the results of a wide discussion of disarmament problems.

The Soviet-American talks on the limitation of strategic weapons and the balanced reduction of armaments should be considered in this context.

In the understanding of the Portuguese Government, the principal objective of the special session must be to arouse international public opinion regarding the gravity of the problems represented by the unrestrained accumulation of armaments and to encourage the creation of a new spirit that will generate a decisive impetus in the disarmament negotiations.

In its opinion, the work of the Assembly should be oriented as follows:

I. States should be represented on a high level.

II. The general debate should avoid confrontations of a political character and, without being a mere repetition of the usual discussions, should lead to the approval of a declaration of principles, accepted by all States, which would express the new approach in the disarmament negotiations.

III. In specialized committees there should be debated and approved:

(a) Concrete measures for disarmament or arms limitation, prepared by specialized bodies.

(b) A programme of medium and long-term action in which would be indicated the problems needing priority treatment. Among those, the Portuguese Government suggests:

(1) Nuclear disarmament.

(2) Prohibition of the manufacture of new types of weapons of mass destruction, and reduction, under international control, of existing nuclear arsenals, with a view towards their complete extinction.

(3) Prohibition of chemical, bacteriological (biological) and incendiary weapons.

(4) Control and reduction of the manufacture and transfer of conventional weapons.

The Portuguese Government is fully conscious of the difficulties involved in solving the above-mentioned problems; responsibility for this should be given to organs of a necessarily specialized nature within which opinions of all interested States should be heard. The Portuguese Government, however, does not believe that strict timing can be fixed for the fulfilment of these measures.

IV. One of the matters that must be carefully studied by the special session of the General Assembly is that of revision of the role of the United Nations, particularly its Centre for Disarmament in the negotiations and studies to be undertaken. Also, should be reviewed the activities, composition and work methods of other bodies charged with this type of negotiations.

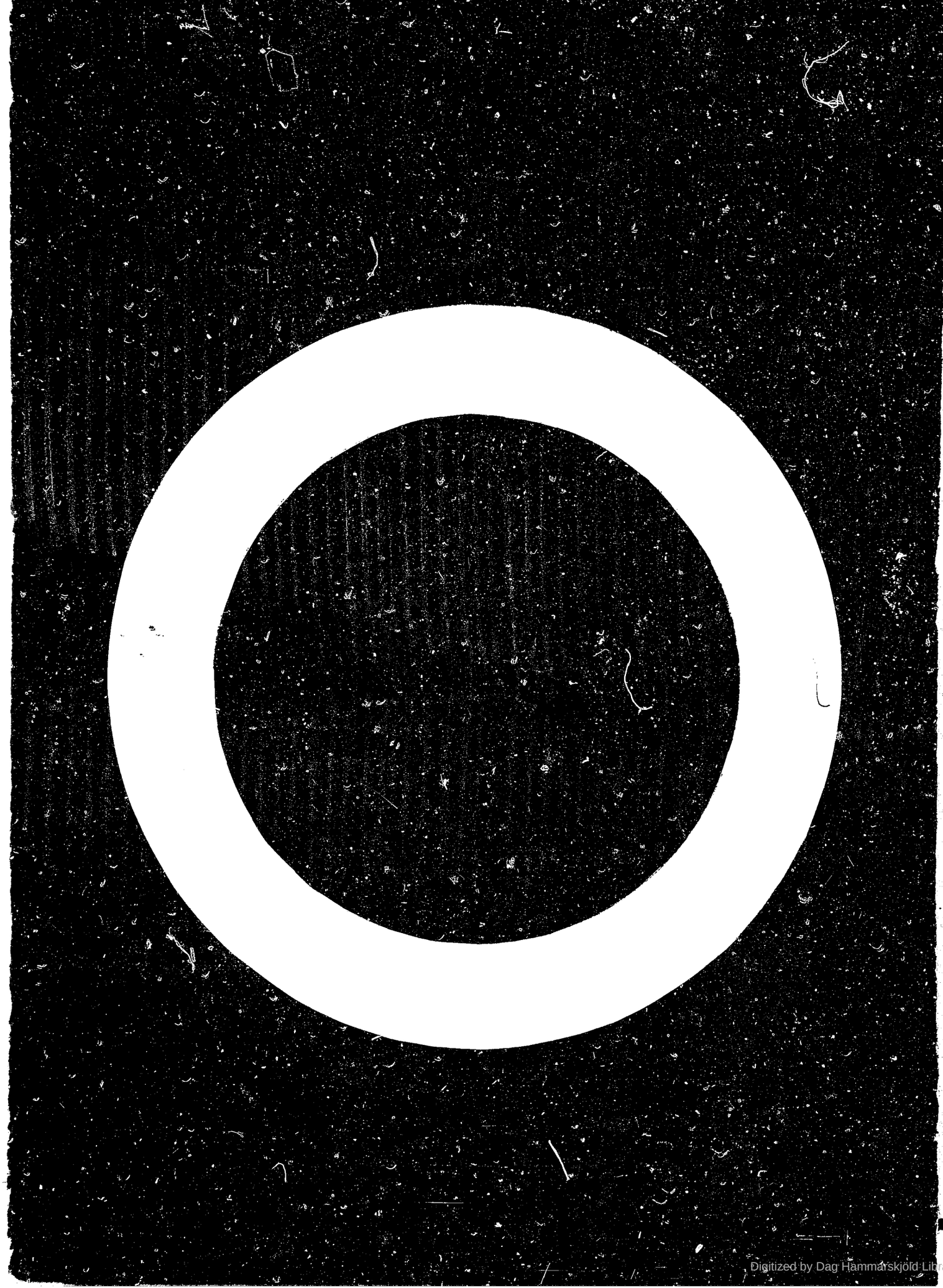
As was stated earlier, special attention must be taken to inform public opinion of the problems and measures related to disarmament.

As the Minister for Foreign Affairs of Portugal stated in the general debate of the thirty-first session of the General Assembly:

> "Portugal is concerned about the intensification of the arms race, so often camouflaged behind pacifistic declarations, and would like to see consecrated international détente and the existence of zones where there would be no risk of violent confrontations ...
>
> "... Portugal does not refrain from an intense intervention in this domain and believes that the small nations can now play a decisive role in the defense of the conditions of their security, so often different from those intended by the great powers."

Finally, the Portuguese Government must yet emphasize that, in a spirit of conciliation, the resolutions of the Assembly must be adopted, whenever possible, by consensus, the only way of ensuring their universal applicability.

The Portuguese Government would like to declare once again its intention to co-operate most actively in the work of the special session devoted to disarmament.



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UNITED NATIONS

GENERAL ASSEMBLY

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GENERAL

A/AC.187/60
13 June 1977

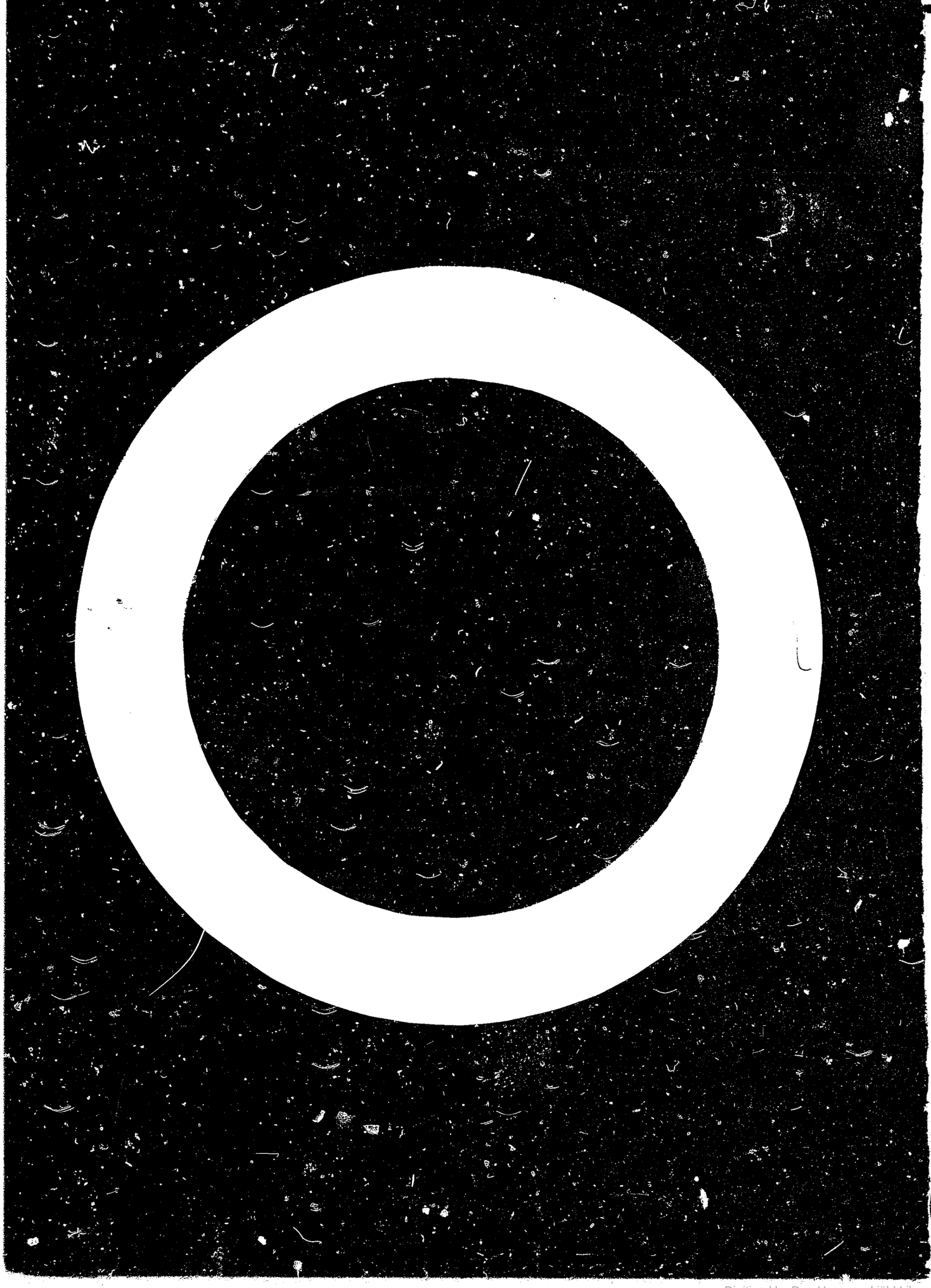
ORIGINAL: ENGLISH

PREPARATORY COMMITTEE FOR THE SPECIAL SESSION OF THE GENERAL ASSEMBLY DEVOTED TO DISARMAMENT

Letter dated 9 June 1977 from the Permanent Representative of Mauritius to the United Nations addressed to the Chairman of the Preparatory Committee

I have the honour to submit attached for circulation as a document of the Preparatory Committee for the special session of the General Assembly devoted to disarmament, i.e. a working paper containing some views on the content of the declaration on disarmament to be elaborated by the Preparatory Committee for submission to the special session.

(Signed) Radha Krishna RAMPHUL
Ambassador Extraordinary
and Plenipotentiary



Annex

Working paper containing elements to be included in the declaration on disarmament submitted by the Permanent Representative of Mauritius to the United Nations on 9 June 1977

The framework

1. During the three decades that have elapsed since the Second World War, vast transformations have taken place in the world and this development is continuing. The process of decolonization is nearly completed and has transformed the geopolitical map of the world. All States, regardless of their size and their economic and military potential, are increasingly active in the discussion and solution of major issues.

2. While fully recognizing the important role and responsibilities of great Powers with respect to peace and security, the small and medium-sized States, the developing countries and the non-aligned States, are all parties which must be involved in this time and age when the process of scientific and technological advance and democratization is producing a new form of world society. The world is in the search for a more and just acceptable world order. The positive results of this search are, however, constantly threatened by the continuing arms race. In an international environment dominated by the arms race, military and strategic considerations stand to shape the over-all relations between States affecting also all other relations and transactions. Only if we make a major progress in the field of disarmament will it be possible to create a system of world order based on collective responsibility and a climate of international confidence.

3. The vast arsenals already accumulated and the ongoing race to produce new arms make the peace and security of our world less stable. Stocks of nuclear weapons in the possession of the nuclear Powers have already for many years been sufficient to destroy the world many times over. Still the number of nuclear warheads have increased fivefold in the last eight years. In addition, these weapons are constantly being diversified and their performance characteristics improved. Already today we observe the development by the major Powers of new generations and types of nuclear weapons that are smaller in power but more accurate in finding their intended target. These can lead to a gradual erosion of the dividing line between the use of nuclear and conventional weapons. The danger over the spread of nuclear weapons increases with every year as the art of nuclear technology becomes more widely known. The so-called conventional weapons are becoming increasingly sophisticated and deadly. There is the real possibility of development of new, even more dangerous weapons of mass destruction which would pose additional innumerable hazards to all mankind.

4. There is an evident need to end the present trend of massive diversion to military ends of financial resources, manpower, raw materials, technical skills and development capability. There is today a greater awareness that the whole world is facing a series of urgent and important problems which will require the mobilization of all energies and resources for their solution. Chief among these questions is the problem of development and the associated task of establishing a

new international economic order. There are consequently large claims on investment, research and other resources in direct competition with military demands. The arms race with its economic costs and social and political effects constitutes the single most massive obstacle to effective progress. Effective disarmament is needed to release resources for the peaceful development of all, and especially of the developing countries. Disarmament must be a vital part of our attempts to restructure the world order politically, economically and socially. The need is today greater than ever.

5. Relieving the cold war atmosphere has had an important effect in relaxing the international climate, thereby diminishing the risk of an over-all nuclear war. But détente has not extended to all areas of the world and it has not yet been able to lead to a real break-through in the process of disarmament.

6. The disarmament efforts, since the Second World War, have produced some very modest results in the nature of arms limitation, rather than disarmament. The thrust has been on regulating competition in armaments proscribing certain developments deemed to be particularly destabilizing, costly or otherwise unacceptable rather than an attempt to substantially reduce important weapons systems. In the context of a rapidly innovating arms race such an approach is bound to fail. Technological innovations tend to outstrip the pace of negotiations. The momentum of the arms race makes it circumvent the too weak barriers that have been built to stop it. Partial and collateral measures can play a role in the cessation reversal of the arms race only if they are conceived as part of a broader programme aimed at substantial disarmament in areas of weaponry of central military significance ultimately leading to general and complete disarmament and particularly nuclear disarmament under effective international control.

7. Disarmament should be approached in a comprehensive manner, efforts should aim at real disarmament. Work should be resumed on the elaboration of a treaty on general and complete disarmament.

Principles for disarmament negotiations

8. The goal of negotiations is to achieve agreement on a programme which will ensure:

(a) That disarmament is general and complete and war is no longer an instrument for settling international problems;

(b) That such disarmament is accompanied by the establishment of reliable procedures for the peaceful settlement of disputes and effective arrangements for the maintenance of peace in accordance with the principles of the Charter of the United Nations.

9. The highest priority should be given to disarmament matters dealing with nuclear weapons.

10. All States should have the opportunity to express their views on the substance and basic principles of such a programme and on its scope, practical ways and means of implementing it and other aspects of the programme; they should participate actively in terms of full equality in all phases of negotiations on the drafting of the programme so that it may embody the will of all peoples and give expression to their fundamental interests.

11. The participation of all nuclear-weapon States and of all other major military powers in the efforts to contain the nuclear arms race and to reduce and eliminate all armaments is indispensable for a full measure of success in the disarmament efforts.

12. Disarmament being a matter of great concern to all States and to all peoples, there is a pressing need for all Governments and peoples to be informed about and understand the prevailing situation in the field of the arms race and disarmament and that the United Nations has a central role in this connexion in keeping with its obligations under the Charter of the United Nations. The problems of disarmament and particularly nuclear disarmament should not be a secret held by certain categories of persons, politicians and soldiers; they directly affect the security and the very lives of peoples and the peoples should know what action to take in this direction in order to be able to have their say and defend their vital interests. That is why public opinion and peoples of all countries must be fully informed and periodic reports must be issued on the current status of armaments and its consequences and on the steps to be taken to stop the arms race.

13. The United Nations which bears responsibility for disarmament under the Charter should be kept informed of all unilateral, bilateral or multilateral efforts thereon.

14. No disarmament or disarmament-related measure should adversely affect the scientific, technological or economic future of nations. All nations have full rights of access to all achievements of science and technology without any restrictions whatsoever.

Principles for the disarmament process

15. International agreement in the field of disarmament concluded so far should become universal and all parties should fulfil all the obligations arising from these treaties.

16. The programme for general and complete disarmament shall ensure that States will have at their disposal only such non-nuclear armaments, forces, facilities and establishments as are agreed to be necessary to maintain internal order and protect the personal security of citizens; and that States shall support and provide agreed manpower for a United Nations peace force.

17. To this end, the programme for general and complete disarmament shall contain the necessary provisions, with respect to the military establishment of every nation for:

(a) The disbanding of armed forces, the dismantling of military establishments, including bases, the cessation of the production of armaments as well as their liquidation or conversion to peaceful uses;

(b) The elimination of all stockpiles of nuclear, chemical, bacteriological and other weapons of mass destruction, and the cessation of the production of such weapons;

(c) The elimination of all means of delivery of weapons of mass destruction;

(d) The abolition of organizations and institutions designed to organize the military effort of States, the cessation of military training, and the closing of all military training institutions;

(e) The discontinuance of military expenditures.

18. The disarmament programme should be implemented in an agreed sequence, by stages, until it is completed, with each measure and stage carried out within specified time-limits. Transition to a subsequent stage in the process of disarmament should take place upon a review of the implementation of measures included in the preceding stage and upon a decision that all such measures have been implemented and verified and that any additional verification arrangements required for measures in the next stage are, when appropriate, ready to operate.

19. All measures of general and complete disarmament should be balanced so that at no stage of the implementation of the treaty could any State or group of States gain military advantage and that security is ensured equally for all.

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

21. Progress in disarmament should be accompanied by measures to strengthen institutions for maintaining peace and the settlement of international disputes by peaceful means. During and after the implementation of the programme of general and complete disarmament, there should be taken, in accordance with the principles of the United Nations Charter, the necessary measures to maintain international peace and security, including the obligation of States to place at the disposal of the United Nations agreed manpower necessary for an international peace force to be equipped with agreed types of armaments. Arrangements for the use of this force should ensure that the United Nations can effectively deter or suppress any threat or use of arms in violation of the purposes and principles of the United Nations.

22. States participating in the negotiations should seek to achieve and implement the widest possible agreement at the earliest possible date. Efforts should continue without interruption until agreement upon the total programme has been achieved, and efforts to ensure early agreement on and implementation of measures of disarmament should be undertaken without prejudicing progress on an agreement on the total programme and in such a way that these measures would facilitate and form part of that programme.

Other elements

23. The General Assembly should consider annually the progress made in the implementation of the comprehensive programme. Every three years, the General Assembly should review the comprehensive programme and revise it as warranted. This will entail an evaluation of the over-all situation in the field of disarmament and a comparison between the development in regard to armaments and disarmament. The Disarmament Commission might be reactivated and entrusted with part of this task.

24. The practice of requesting the Secretary-General to prepare, with the assistance of expert consultants, authoritative studies on concrete questions relating to the arms race and disarmament should be continued.

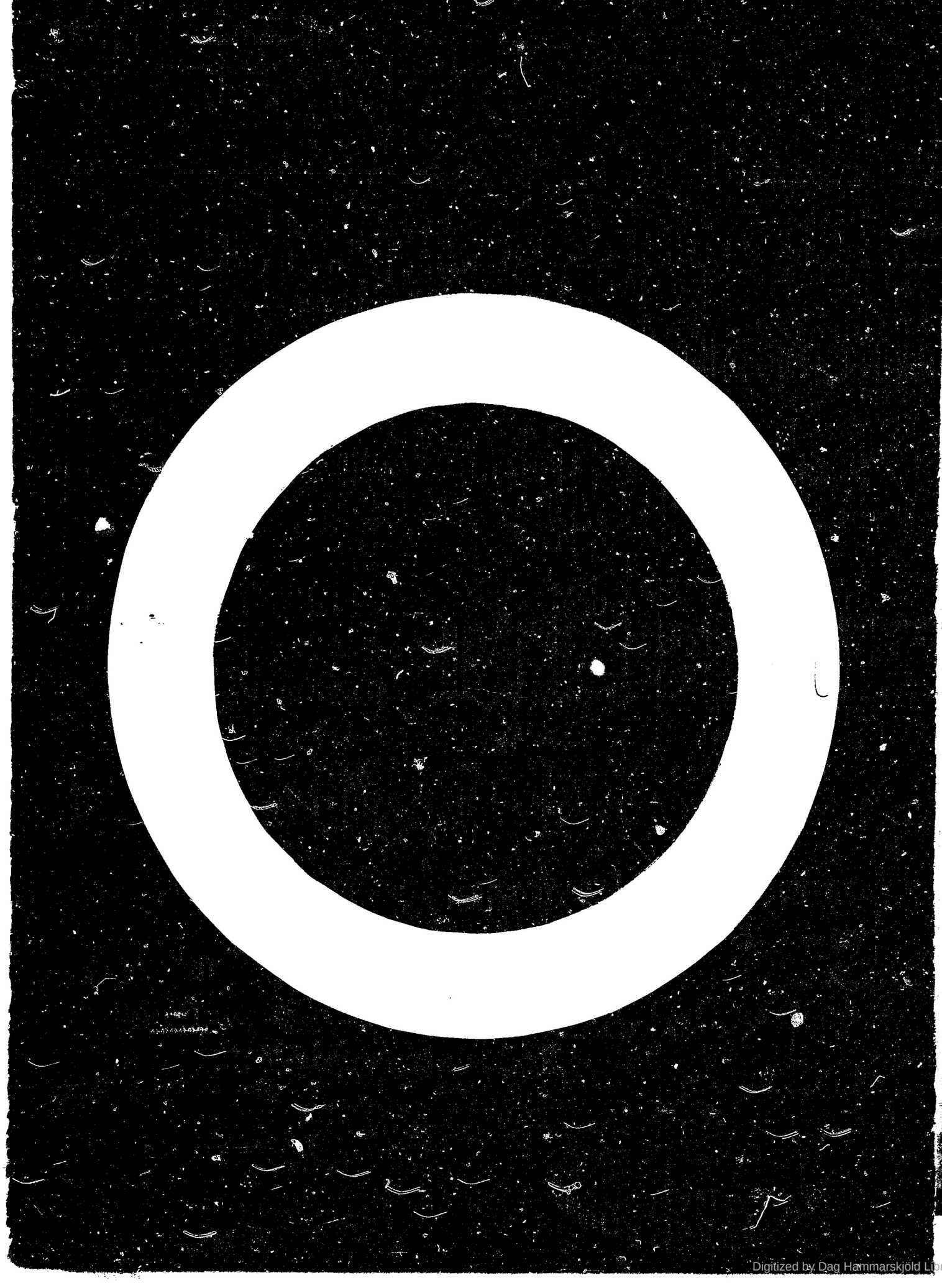
25. The advisability of carrying out studies by qualified groups of experts on specific problems of disarmament, which warrant it, should be carefully explored in the Conference of the Committee on Disarmament.

26. There should be more conferences and scientific exchanges among scientists and experts from various countries on the problem of the arms race and disarmament.

27. Universities and academic institutes should be encouraged to establish continuing courses and seminars to study problems of the arms race, military expenditures and disarmament.

28. The increased exchanges and publications of relevant information and data should lead to greater openness, to the establishment of greater confidence among States and increased knowledge and interest in these matters among the public.

29. The feasibility of convening, in due time and after appropriate preparatory work, a world disarmament conference of all States should be thoroughly studied.



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PREPARATORY COMMITTEE FOR THE SPECIAL SESSION OF THE GENERAL ASSEMBLY DEVOTED TO DISARMAMENT

Note verbale dated 10 June 1977 from the Permanent Representative of Egypt to the United Nations addressed to the Secretary-General

The Permanent Representative of the Arab Republic of Egypt to the United Nations presents his compliments to the Secretary-General of the United Nations and, with reference to his note No. CR 421/6(3) dated 19 May 1977 whereby the Secretary-General invites all States to communicate to him "their views and suggestions on the agenda and all other relevant questions relating to the special session of the General Assembly not later than 15 April 1977", has the honour to enclose herewith the Egyptian Government views in Arabic.

REPLY OF THE ARAB REPUBLIC OF EGYPT CONCERNING VIEWS AND SUGGESTIONS ON THE SPECIAL SESSION OF THE GENERAL ASSEMBLY DEVOTED TO DISARMAMENT IN ACCORDANCE WITH GENERAL ASSEMBLY RESOLUTION 31/189 B

I. Introduction

1. The Government of the Arab Republic of Egypt has always supported all efforts and constructive proposals made for arriving at general and complete disarmament under effective international control and has submitted a number of suggestions which make a positive contribution towards the realization of this major goal, both with regard to regional action to save specific regions from the serious consequences of the arms race, in particular the nuclear arms race, and with regard to international action to halt this momentous race which threatens humanity and its achievements with total destruction at a time when the peoples of the world are being deprived of important resources which could contribute to its progress or help in coping with development problems, particularly with regard to developing countries.

2. General and complete disarmament under effective international control is therefore rightly regarded as one of the major objectives at the current stage of international development, if not the major objective to which many other objectives, not least among them the turning of the wheel of development, the reform of the international economic order and the direction of scientific progress along a sound course which will serve the cause of peace, justice and progress - the objectives for which the United Nations was founded and which it has made its final objectives - are linked and on which they are based.

3. On the basis of the above views and convictions, the Egyptian Government cannot but support the convening of a special session of the United Nations General Assembly devoted to discussion of this major and vital topic; this support is reflected in its support for the General Assembly resolution on the convening of this session.

II. The non-aligned movement and disarmament

1. Ever since the establishment of this movement, of which Egypt is proud to be a founder, the non-aligned States have taken a firm stand calling for general and complete disarmament. The position of the non-aligned group has been a reliable expression of the hopes which have tempted mankind ever since armament or the arms race became a threat to the future of humanity, just as it is a threat to its present, in view of the heavy burdens which it represents and which are actually borne by all peoples of the world at the expense of their progress, prosperity and security.

2. The States of the non-aligned group, both within the framework of the United Nations and the General Assembly and within the framework of the Ad Hoc Committee on the World Disarmament Conference, have played a positive role in promoting the objective of the realization of tangible progress towards

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disarmament; the initiative to convene a special session of the General Assembly devoted to disarmament arose from the first Non-aligned Summit Conference and was reaffirmed at the fifth Non-aligned Summit Conference held in August 1976 in Colombo (Sri Lanka).

3. The non-aligned group took as its starting-point for this initiative the fact that the time has come to instigate joint action and a collective international approach in order to achieve genuine progress towards general and complete disarmament through the United Nations, which is considered the rightful framework for the establishment of a world strategy to guarantee progress towards this objective. Moreover, the General Assembly's decision to undertake a study of the question and its adoption of a significant number of declarations and resolutions on disarmament make it the most appropriate body to review measures in respect of which widespread acceptance has been achieved and to determine what progress or action can be established on the basis thereof.

4. Furthermore, the non-aligned States believe that the policy of the use of force, which is regarded as the basis of the continuation of unjust circumstances presenting a threat to world peace, stems from, is based on, and finds its expression in the continuation and development of armaments and the savage arms race. Therefore, a halting of the arms race, the reduction of armaments, and disarmament will serve to weaken and ultimately put an end to the policy of reliance on force and the use of force in international relations and open the way to peaceful negotiation, peaceful coexistence and the peaceful solution of problems, which would be a sound expression and faithful implementation of the purposes and principles of the Charter, in which the non-aligned movement firmly believes.

5. It is, of course, clear that the position of the non-aligned States and the developing countries generally, and indeed any sound position on the subject of general and complete disarmament, is based on the need to establish a just peace and put an end to racism in all its forms, foreign occupation and pockets of colonialism, not on the imposition, acceptance or consecration of the status quo. The Egyptian Government considers that the elimination of all forms of racial discrimination and foreign occupation, the abandonment of theories of domination and expansion, and respect for all established rights is an essential condition for the establishment of a just international order which would form the basic framework for general, complete and effective disarmament.

III. The special session

1. Appraisal of the present situation with regard to disarmament:

(a) Despite all the efforts made, the initiatives and decisions taken and the agreements arrived at, the importance of which must not be underestimated, the practical results are not commensurate with the efforts made and the hopes placed on them. There is a clear contradiction between the pressing need to halt the arms race - at least - and the paucity of actual achievements in the field and the vicious circle in which international efforts have become engaged.

(b) The efforts currently being made, particularly at the bilateral level and in the light of the responsibilities binding upon the two major Powers under the provisions of the Charter and in accordance with the specific commitments arising out of a number of international agreements, in particular article VI of the Treaty on Non-Proliferation, merit careful attention and support inasmuch as they may provide an effective point of departure for progress towards the halting of the arms race and, eventually, general and complete disarmament itself. This by no means negates the importance of joint international action, nor is it a substitute for it. The issue is world-wide in its dimensions and consequences, hence the importance of the forthcoming special session.

2. General principles of Egypt's position concerning the special session:

(a) The Egyptian Government would like to emphasize its faith in the role of the United Nations in tackling all the problems facing mankind in our present age. It would, however, at the same time, like to point out that a major step such as a special session of the General Assembly should not conclude merely with a declaration or declarations concerning the international community's zeal for disarmament, but must tackle the problem with in-depth studies which take into account the technical, political, economic, social and informational aspects of the subject and which serve to link and co-ordinate the measures taken to this end in the past with those being taken currently and those which may be taken in the near future. In addition, there is the important question of planning for a programme divided into time phases over which progress towards the agreed objectives is to be achieved, taking into account the elements mentioned above and other elements. All this indicates clearly the important role which the Preparatory Committee must play in steering action towards the realization of this study on a world-wide level and towards the achievement of significant results at this session.

(b) Furthermore, efforts must be made to check the trend towards auctioneering and opportunism and prevent it from dominating, or at least infiltrating, the discussions of the special session, as this possibility emerges from some of the replies, which indicate a desire to utilize the occasion of the session for the realization of specific objectives. In this connexion, in order to make the matter clear, the Arab Republic of Egypt would point out once again that the framework of the United Nations and acceptance of its decisions and the agreements concluded under its auspices constitute the only appropriate basis for serious and sincere work on general and complete disarmament.

(c) With regard to the decision taken by the Preparatory Committee for the Special Session at its first session that decisions and declarations of the session are to be based on consensus where possible and that, where this is not possible, the rules of procedure of the General Assembly shall apply in the taking of decisions, the Egyptian Government considers that consensus may be necessary at the negotiation stage to arrive at agreement on the fundamental principles of disarmament agreements and that when these principles have been agreed upon, the rules of procedure of the General Assembly must apply in the drafting process. In general, consensus must be viewed as a factor for promoting a rapprochement of viewpoints and not as a means of hindering progress towards the completion of the work envisaged.

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3. Programme of action and agenda:

(a) It is essential that the special session should produce, as well as such declarations and decisions as it may issue, a specific and clear programme of action indicating the role of all committees and subsidiary organs active in this field with regard to all points agreed upon or approved for study.

(b) Programme of action and the role of United Nations bodies and machinery in international action on disarmament: A study should be made of the role of the Security Council in the field of disarmament, as the Council is the main body concerned with the maintenance of international peace and security. It is perfectly clear that there is a link between the maintenance of international peace and security, on the one hand, and general and complete disarmament, on the other. The programme of action should take into consideration the co-ordination of the political and security aspects which are within the competence of the Security Council, the economic and social aspects which are a matter for the Economic and Social Council, and the technical aspects which concern the Ad Hoc Committee on the World Disarmament Conference, as well as other aspects referred to specialized committees and bodies. The General Assembly will undertake the over-all supervision and co-ordination of all these efforts within a specific time period.

(c) With regard to the agenda, the Egyptian Government maintains that the topics to be discussed at the special session, and in the Preparatory Committee for the Special Session, should include the following:

(i) General principles, the link between disarmament and the establishment of international peace and justice, and the role of the principal organs of the United Nations, such as the Security Council, in this respect;

(ii) Examination of what has been achieved so far in the field of disarmament, the reduction of armaments, the banning of certain nuclear tests, etc.;

(iii) The cessation of nuclear tests and, in particular, the question of the conclusion of a treaty designed to achieve a comprehensive nuclear test ban; the extent of implementation of the Treaty on the Non-Proliferation of Nuclear Weapons, and measures for the implementation and strengthening of that Treaty; the conclusions of the Review Conference held in 1975; the enhancement of the safeguards system; the establishment of general principles concerning non-proliferation, binding on all parties, as a result of the entry into force of the Treaty on Non-Proliferation as part of the applicable rules of international law;

(iv) The question of nuclear-free zones and its relation to accession to the Treaty on Non-Proliferation;

(v) Consideration of measures to be taken in accordance with a specific time-table with regard to the banning of the production, stockpiling and use of nuclear weapons and other weapons of mass destruction and the prohibition of the development of weapons of mass destruction;

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(vi) The importance of international control of peaceful uses; the question of safeguards; and the measures to be taken in respect of non-compliance by a State;

(vii) Follow-up of progress achieved in bilateral talks, especially the Strategic Arms Limitation Talks between the United States and the Soviet Union, in the light of reports submitted by the two super-Powers to the special session. In this connexion, the Egyptian Government proposes that the General Assembly should, at its thirty-second session, adopt a resolution calling on both super-Powers to submit such reports to the special session;

(viii) Disarmament and the environment;

(ix) The economic and social implications of disarmament;

(x) The security of non-nuclear States pending the establishment of a comprehensive nuclear disarmament régime;

(xi) Trade in armaments;

(xii) Machinery to supervise the implementation of any commitments that may arise from the resolutions and instruments adopted at the special session;

(xiii) United Nations organs active in the field of disarmament;

(xiv) An international information programme on disarmament.

(d) The Preparatory Committee

- In addition to determining the agenda on which the programme of action and any other measures will be based, the Preparatory Committee should consider the preliminary organization of work and submit its recommendations in that respect to the General Assembly at its forthcoming regular session so that the Assembly may refer the recommendations to the competent organs for study, and for the preparation of the relevant working papers. The Preparatory Committee should then meet again before the special session in order to finalize the documents for the special session including any declarations and the programme of action.

- The work of the Preparatory Committee should receive support from other organs specializing in the field of disarmament. Those organs should submit to the Preparatory Committee reports on matters which it has been agreed should be included in the agenda, so that the work of the special session will be new and comprehensive.

- Thirdly, the Preparatory Committee should examine the political action which is to be combined with action in the field of disarmament, such as that relating to foreign military occupation and methods of curbing the arms race, so that it will be possible to give consideration to the discontinuation and reduction of armaments and to disarmament.

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- Fourthly, the Preparatory Committee should submit a report on the efficiency of existing disarmament machinery. The Egyptian Government is of the view that it is important to maintain the Ad Hoc Committee on the World Disarmament Conference since this Committee has covered significant ground in considering relevant topics, solving a number of issues, and reaching some conclusions.

- It would also be worth while for the Preparatory Committee to study the possibility of a proposal to amend the Charter by the inclusion of a provision prohibiting nuclear weapons, or a proposal for a commitment to seek such a prohibition regarding the proliferation of military nuclear armaments as a threat to international peace and security. The Committee may also consider the inclusion in the programme of action of a provision requiring States to submit reports periodically (e.g. annually) on the extent of their nuclear armaments, on measures they have taken in connexion with the reduction of such armaments or the commitment to nuclear disarmament, and on the enhancement of the authority of international control of nuclear armaments.

- Consideration of an international information programme to be carried out at all levels to publicize the importance of disarmament.

(e) Follow-up of the conclusions of the special session:

Consideration should be given to the convening of another special session, perhaps on the occasion of the thirty-fifth anniversary of the United Nations, in other words, shortly before the thirty-fifth session of the General Assembly, which will coincide with the end of the Disarmament Decade. Consideration might also be given to the convening of an international conference on disarmament in which all nuclear Powers would participate, since without their participation the Conference would serve little purpose.

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PREPARATORY COMMITTEE FOR THE SPECIAL SESSION OF THE GENERAL ASSEMBLY DEVOTED TO DISARMAMENT

Corrigendum

Note verbale dated 10 June 1977 from the Permanent Representative of Egypt to the United Nations addressed to the Secretary-General

Page 2, Section II, subparagraph 2

Replace the words "Ad Hoc Committee on the World Disarmament Conference" by the words "Conference of the Committee on Disarmament".

Page 5, subparagraph (b)

Replace the words "Ad Hoc Committee on the World Disarmament Conference" by the words "Conference of the Committee on Disarmament".

Page 7, first paragraph

Replace the words "Ad Hoc Committee on the World Disarmament Conference" by the words "Conference of the Committee on Disarmament".

Page 7, last paragraph

Replace the words "convening of an international conference on disarmament" by the words "convening of a world disarmament conference".

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PREPARATORY COMMITTEE FOR THE SPECIAL SESSION OF THE GENERAL ASSEMBLY DEVOTED TO DISARMAMENT

Letter dated 9 June 1977 from the Permanent Representative of Mauritius to the United Nations addressed to the Secretariat of the United Nations

In view of the importance of the statement by the Secretary-General at the opening of the Preparatory Committee for the Special Session of the General Assembly Devoted to Disarmament, I have the honour to request that the text of His Excellency's statement be circulated in extenso as a document of the Preparatory Committee.

(Signed) Radha Krishna RAMPHUL
Ambassador Extraordinary
and Plenipotentiary

Statement made by the Secretary-General at the opening session of the Preparatory Committee for the Special Session of the General Assembly Devoted to Disarmament on 28 March 1977

Disarmament is a vital aspect of the primary function of the Organization, the maintenance of international peace and security, and we are now beginning the preparations for the special session which will, in all probability, be the largest, most representative gathering ever convened to consider the question of disarmament in all its aspects. Accordingly, I wish to take this opportunity to make some comments on the tasks ahead and on the role of the United Nations.

In order to tackle the question of disarmament in all its ramifications, we must examine the underlying problems of international order. During the three decades which have elapsed since the Second World War, vast transformations have occurred, and this development is continuing. The process of decolonization is nearly completed and has transformed the geopolitical map of the world. All States, regardless of their size and their economic or military potential, are increasingly active in the discussion and solution of major issues.

While fully recognizing the important role and responsibilities of the great Powers with respect to peace and security, the small and medium-sized States, the developing countries and the non-aligned States are all parties which must be involved in this time and age when the process of scientific and technological advance and democratization is producing a new form of world society. The holding of a special session on disarmament may, therefore, be an important element in the search for a more just and equitable world order. The positive results of this search are, however, constantly threatened by the continuing arms race. In an international environment dominated by the arms race, military and strategic considerations tend to shape the over-all relations between States, affecting also all other relations and transactions. Unless an end is put to the arms race and unless a vigorous process of disarmament and, particularly, nuclear disarmament is initiated, there can be no guarantee that relations among States would be, in fact, based on the principles of national independence and sovereignty, of non-interference in the domestic affairs of other States, of full equality of rights, of non-resort to force or to the threat of force and of the right of every people to decide its own destiny.

It is, therefore, evident that the United Nations cannot be expected to function on the basis of the Charter and international law unless we succeed in making major progress in the field of disarmament. Only then will it be possible to create a system of world order based on collective responsibility and a climate of international confidence.

The vast arsenals already accumulated and the ongoing race to produce new arms make the peace and security of our world less stable. Stocks of nuclear weapons in the possession of the nuclear Powers have already for many years been sufficient to destroy the world many times over. Still, the number of nuclear

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warheads has increased fivefold in the last eight years. In addition, these weapons are constantly being diversified and their performance characteristics improved. Already today we observe the development, by the major Powers, of new generations and types of nuclear weapons that are smaller in power but more accurate in finding their intended targets. This can lead to a gradual erosion of the dividing line between the use of nuclear and conventional weapons. The danger of a further spread of nuclear weapons increases with every year as the art of nuclear technology becomes more widely known. The so-called conventional weapons are becoming increasingly sophisticated and deadly.

At the same time, we see a discussion among scientists of the possibilities of development of new, even more dangerous weapons of mass destruction, which would face mankind with additional innumerable hazards. In this situation there is only one road available that leads the world towards a peaceful and prosperous future, and that road is towards disarmament.

Progress in disarmament is also needed in order to end the present trend of a massive diversion to military ends of financial resources, manpower, raw materials, technical skills and research and development capability. There is today a greater awareness that the world is facing a series of urgent and important problems which will require the mobilization of all our energies and resources for their solution. Chief among these questions is the problem of development and the associated task of establishing a new international economic order. There are, consequently, large claims on investment, research and other resources in direct competition with military demands. The arms race with its economic costs and social and political effects constitutes the single most massive obstacle to effective progress.

For a number of years, world military expenditure has been around $300 billion per year. Every year, the military absorb resources equivalent to about two thirds of the aggregate gross national product of the countries which together comprise the poorest half of the world's population.

The vast benefits which could result from even trifling reductions in arms expenditures are evident in many fields. So, for example, the World Health Organization has spent about $83 million over 10 years to eradicate smallpox in the world. That amount would not even suffice to buy a single modern supersonic bomber. The World Health programme to eradicate malaria in the world at an estimated cost of some $450 million, is dragging on due to lack of funds. Yet its total cost over the years is only half of what is spent every day for military purposes.

In the area of nutrition, half a billion people are severely malnourished. A large proportion of young children in developing countries are blocked in their physical and mental development because of diet deficiencies with incalculable consequences for the next generation. In recent years famine has struck entire regions of the world. At the World Food Conference in 1974 it was estimated that development assistance to agriculture needed to be stepped up to $5-6 billion annually for the remainder of this decade.

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While fund commitments for this purpose have risen substantially since then, they are still off the target of $2-3 billion. A reduction of the military budgets of industrialized countries by a mere 1 per cent would be sufficient to close this gap.

In the field of scientific and technological capability the diversion of resources to military ends is most massive. It is estimated that 25 per cent of the world's scientific manpower is engaged in military-related pursuits and that 40 per cent of all research and development spending in the world is devoted to military purposes.

It is estimated that for the world as a whole, altogether 60 million people are engaged in military-related occupations, uniformed or civilian, public or private. This corresponds to the entire labour force in manufacturing in Europe outside the Soviet Union, or to 70 per cent of the total employed in the United States in all branches of activity. The arms race and the military expenditures thus create a burden on all peoples and interfere with the economic development of all States. Today, when the international community has accepted the objective of a new international economic order, this burden should no longer be tolerated.

Effective disarmament is, therefore, needed to release resources for the peaceful development of all, and especially of the developing countries. Disarmament must be a vital part of our attempts to restructure the world order, politically, economically and socially. The need is today greater than ever.

It is obvious that relieving the cold war atmosphere has had an important effect in relaxing the international climate, thereby diminishing the risk that peripheral conflicts will escalate into nuclear war. Improvement of international co-operation, as recognized in the Helsinki Delcaration on Security and Co-operation in Europe, is a prerequisite for a lessening of tensions. But détente has not extended to all areas of the world and it has not yet been able to lead to a real breakthrough in the process of disarmament.

Looking back over the disarmament efforts since the Second World War, there have been some, although modest, achievements. With the exception of the Convention prohibiting biological weapons, the results have been in the nature of arms limitation rather than disarmament. The thrust has been on regulating competition in armaments, proscribing certain developments deemed to be particularly destabilizing, costly or otherwise unacceptable, rather than an attempt to substantially reduce important weapons systems.

There is, today a growing realization that in the context of a rapidly innovating arms race such an approach is bound to fail. Technological inventions tend to outstrip the pace of negotiations. The momentum of the arms race makes it circumvent the too weak barriers that have been built to stop it.

Partial and collateral measures can play a role in the cessation and subsequent reversal of the arms race only if they are conceived as part of a

broader programme, aimed at substantial disarmament in areas of weaponry of central military significance ultimately leading to general and complete disarmament and, particularly, nuclear disarmament under effective international control.

What is needed, then, is a comprehensive approach to disarmament that is aimed at real disarmament and which is realistic concerning both the possibilities of disarmament and the dangers of a continued lack of decisive progress.

It is in realization of this need of a new approach that the General Assembly has taken the decisive step to call for a special session devoted to disarmament. I hope that this initiative will become a turning point in our search for disarmament and thereby move us closer to attaining the broad objectives for which the United Nations was created. But there must be a willingness on the part of all to participate actively in what may be a very difficult and long drawn-out process.

There is a need to carry out the most careful preparations for the special session so that when it is convened, States will come to it with a readiness to overcome their political differences, to discuss openly and to negotiate in good faith. There should also be an involvement by world public opinion and the organizations, governmental and non-governmental, that are active in mobilizing this opinion. The United Nations General Assembly has repeatedly stressed that absolute priority should be assigned to nuclear disarmament. While we are meeting today, important negotiations between the Soviet Union and the United States have just resumed in Moscow in an effort to overcome the present difficulties in their strategic talks. It is my earnest hope that the parties will reach agreement on important qualitative limitations and substantial reductions of their strategic nuclear weapons systems. Proposals have also been made, some agreements reached, and further negotiations are under way on such measures as the discontinuance of nuclear-weapon-free zones, preventing an arms race on the sea-bed, prohibition of the use of nuclear weapons, etc. It is my firm belief that only by halting the production of nuclear weapons and the liquidation of the existing stocks can one ultimately eliminate the danger of their further horizontal proliferation and the prevention of a nulcear holocaust.

Importance should also be attached to the adoption of measures in the field of chemical and biological weapons, incendiary and other conventional weapons, as well as to partial measures of disarmament, the reduction of military expenditures, and other means of military disengagement, leading eventually to general and in complete disarmament, which was proclaimed as the main goal of the United Nations more than a decade ago.

Under the prevailing circumstances, it is essential to give the United Nations an enhanced role in the field of disarmament. It was in this spirit that I proposed, two years ago, that the General Assembly should consider a basic review of the role of the United Nations in disarmament. I asked what could be done, in practical and realistic terms, to strengthen the role of the United Nations such a way that the necessary progress could be achieved in this field. I made at that time some concrete proposals concerning information and studies on disarmament,

the conduct of relevant discussions and negotiations, as well as for the follow-up of disarmament agreements reached. I am pleased with the response of the General Assembly to this proposal. The measures adopted constitute a beginning that should be continued with determination.

The special session should be a turning point in our efforts to promote real and substantial measures aimed at achieving the ultimate goal of general and complete disarmament under effective international control. I wish to assure you that we in the Secretariat will spare no effort to contribute to the successful preparation for and conclusion of the special session.

The international community is at the crossroads. People expect the United Nations to act to put an end to the arms race. The task is complex. Let us try, through mutual co-operation and understanding, to fulfill their high expectations.

UNITED NATIONS

GENERAL ASSEMBLY

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GENERAL

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17 June 1977

ORIGINAL: ENGLISH

PREPARATORY COMMITTEE FOR THE SPECIAL SESSION OF THE GENERAL ASSEMBLY DEVOTED TO DISARMAMENT

Note verbale dated 7 June 1977 from the Permanent Mission of Surinam to the United Nations addressed to the Secretary-General

The Permanent Mission of the Republic of Surinam to the United Nations presents its compliments to the Secretary-General of the United Nations and, with reference to His Excellency's circular note No. OR 421/6(3) dated 28 January 1977 regarding the special session of the General Assembly devoted to disarmament scheduled for May/June 1978 in New York, has the honour to inform the latter of the following views of the Surinam Government on the agenda and all other relevant questions relating to the special session.

Disarmament is of vital interest to all States. The Surinam Government, therefore, welcomes the special session as a forum where all States can consider and express their views on this important issue and consequently attaches great importance to the work to be done at the special session.

It is the view of the Surinam Government that the unbridled production, stockpiling of, and trade in conventional weapons, poses a serious threat to international peace and security and to the very existence of mankind. The unabated arms race not only menaces international peace and security but should be regarded as a regrettable waste of time, energy and resources in a world where poverty and hunger are still prevailing.

The Government of Surinam, furthermore, is firmly opposed to the production and use of nuclear arms and other weapons for mass-destruction. In accordance with its deeply felt conviction on this matter the Surinam Government recently ratified the Treaty for the Prohibition of Nuclear Weapons in Latin America, concluded at Mexico City on 14 February 1967 (Treaty of Tlatelolco) and Additional Protocol II of 1968 relating to it.

It is the opinion of the Government of Surinam that the special session should be aimed at practical, genuine and durable solutions in order to contain the further production and proliferation of arms and simultaneously at setting the process of general disarmament into motion. Given the limited period of the session,

participants should endeavour to make the most effective use of the time available. A lengthy general debate should therefore be avoided, as such a debate may result in hostile exchanges and statements of a predominently propagandistic nature.

The Surinam Government suggests that the agenda of the special session include the following items:

I. The drawing up of a balance-sheet of weapons for mass-destruction and their locations;

II. Prohibition of research, production, stockpiling and proliferation of nuclear and other weapons for mass-destruction;

III. Cessation of all nuclear-weapon tests;

IV. Establishment of nuclear-weapon-free zones and zones of peace;

V. The role of the United Nations in the field of disarmament.

Since the issues to be dealt with during the special session concern the very survival of mankind as a whole, the question of disarmament cannot be considered as regarding only a few powerful States, but as a matter of vital interest to all peoples of the world.

Hence one of the objectives of the special session should be that widest possible information be given with regard to the dangers of the arms race and the manner in which the session will be dealing with this problem.

Finally, the Surinam Government expresses its hope that the special session on disarmament will mark an important stage in the process of halting the arms race and the realization of the goal of world-wide disarmament.

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PREPARATORY COMMITTEE FOR THE SPECIAL SESSION OF THE GENERAL ASSEMBLY DEVOTED TO DISARMAMENT

Note verbale dated 30 June 1977 from the Permanent Representative of Sri Lanka to the United Nations addressed to the Secretary-General

The special session will perhaps be a culmination of efforts set in motion by non-aligned countries as far back as 1961 at their first summit conference in Belgrade. At the fifth summit conference of non-aligned countries held in Sri Lanka, heads of State or Government reiterated their call for a special session of the General Assembly devoted to disarmament. It is gratifying that resolution 31/189 B was sponsored by a large number of non-aligned and other countries and was adopted without recourse to vote which is indicative of the wide support for a special session among Member States of the United Nations.

The special session should undertake a frank and comprehensive evaluation of the present state of negotiations on disarmament and examine in depth the impact which the continuation of the arms race is having on international peace and security. An important objective of the special session should also be a study of the massive expenditure on arms production, research and development and an examination of ways and means of diverting such resources for the economic and social well-being of all mankind. The reallocation, of course on the basis of criteria relevant to development assistance, of even a portion of the estimated $300 billion being expended on armaments cannot fail to have a significant effect on the world economy as a whole.

Without seeking to prejudge the deliberations of the special session, the Sri Lanka Government is of the view that the existing machinery for disarmament should be supplemented if significant results are to be realized. While negotiations being conducted bilaterally, regionally and between groups of States have made some progress in limited areas, these negotiations must be expedited and extended in scope if they are to have a worth-while impact on the dangerous and futile escalation of the arms race.

The Sri Lanka Government shares the widely held view that all Member States of the United Nations should have an active role in disarmament negotiations. While few measures in the field of disarmament can be really effective without the

participation of all nuclear Powers and the militarily significant States, smaller States are no less concerned about the present continuing military escalation, the consequences of which have a greater, more adverse economic effect on the smaller and militarily weaker States. It is of course recognized that for practical reasons it would not be feasible for all States to participate at all times in negotiations leading to disarmament, but this should not preclude opportunities for the views and interests of all States to be taken into account in reaching major decisions on questions of disarmament.

It is a matter of great satisfaction that the Preparatory Committee for the special session has been able at its last session to agree on a draft agenda for the special session. It is also to be noted that the members of the Non-Aligned Group in the Preparatory Committee have circulated some preliminary observations about the special session.

Adequate preparations should be made in advance of the special session to ensure the optimum use of the limited time available next year during the session itself. Every effort should be made before the session to seek the co-operation of all Member States of the United Nations. Members of the Preparatory Committee have a special role and should be in continuous consultation with all Members of the United Nations so that the broadest possible range of views would be taken into consideration to ensure that the session would have a truly universal character.

Preparations for the special session should include discussions at a formal and informal level (not confined to members of the Preparatory Committee alone) so as to reach agreement at least on the broad substance and framework of the final document to be adopted at the session.

The work of the special session should culminate in two principal documents - one a declaration setting out principles to govern disarmament and the other a programme of action setting out practical and feasible measures within a reasonable time-frame which could lead towards general and complete disarmament.

UNITED NATIONS

GENERAL ASSEMBLY

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A/AC.187/65
7 July 1977

ORIGINAL: ENGLISH

PREPARATORY COMMITTEE FOR THE SPECIAL SESSION OF THE GENERAL ASSEMBLY DEVOTED TO DISARMAMENT

Note verbale dated 6 July 1977 from the Permanent Representative of Barbados to the United Nations addressed to the Secretary-General

For too long the issue of disarmament has been considered the special preserve of experts from two countries - the United States of America and the Soviet Union. The truth is that all countries are affected. Third world countries such as Barbados are continually exposed to dangerous radio-active fall-out and the effects of spoliation of the environment by those actively engaged in the arms race. Atmospheric and marine pollution on the one hand and disruption of the ecological balance on the other today represent a few of the major hazards. Such are the consequences of the arms race.

Third world countries suffer directly or indirectly from these consequences of the arms race and must be allowed to bring their perspective to bear upon these serious problems. The economy of Barbados like that of small States depending on a tourist industry could be seriou y disrupted by the kind of environmental pollution which experimenters in arms development have caused over the years.

The investment of large sums of money, vast quantities of technology and skill in the manufacture of weapons of mass destruction represent gross misuse of the world's resources in an era of scarcity. Not only does it pose serious danger to life, limb and health but it diverts resources more needed in the eradication of poverty to the useless exercise of increasing weapons of mass destruction.

The Government of Barbados' opinion is that nuclear disarmament must be given the highest priority on the agenda. The Government of Barbados enthusiastically welcomes the United Nations special session on disarmament. We recognize that the absence of political will has so far not enabled the establishment of an international authority to guarantee the security of every country. We look forward however to a solution of the disarmament problem. We consider the diversion of resources from the creation of armaments to the satisfaction of the basic needs of the developing nations would be a positive step in this direction. We further consider the mobilization of world opinion in favour of disarmament as necessary to this end.

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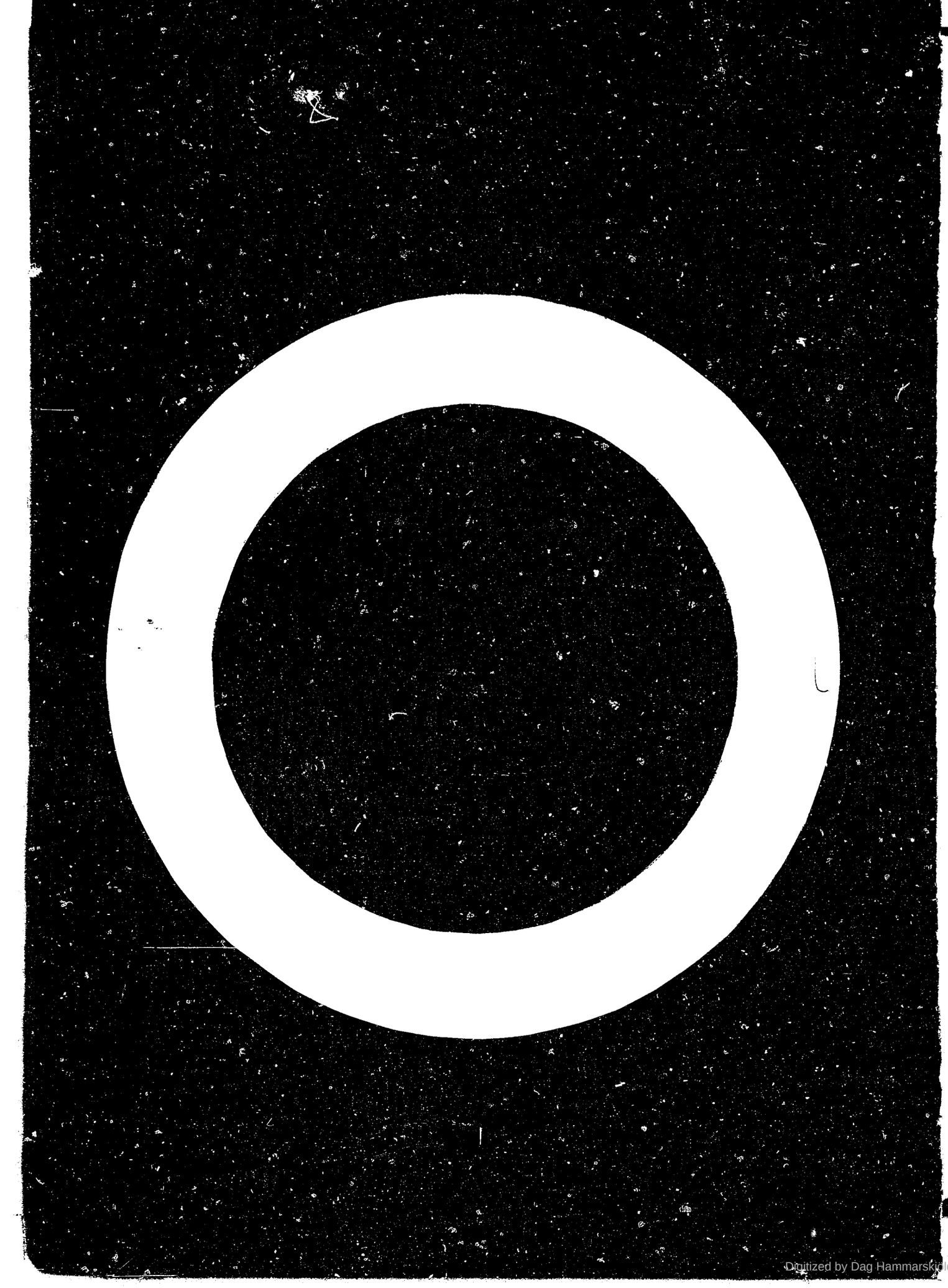

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UNITED NATIONS

GENERAL ASSEMBLY

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12 July 1977

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PREPARATORY COMMITTEE FOR THE SPECIAL SESSION OF THE GENERAL ASSEMBLY DEVOTED TO DISARMAMENT

Note verbale dated 5 July 1977 from the Chargé d'Affaires a.i of the Libyan Arab Jamahiriya to the United Nations addressed to the Secretary-General

The Chargé d'Affaires a.i. of the Socialist People's Libyan Arab Jamahiriya to the United Nations presents his compliments to the Secretary-General of the United Nations and, in response to His Excellency's note No. OR 421/6 (3), has the honour to transmit herewith the views of the Socialist People's Libyan Arab Jamahiriya regarding the convening of a special session of the General Assembly devoted to disarmament.

Views of the Socialist People's Libyan Arab Jamahiriya

The Socialist People's Libyan Arab Jamahiriya has long deplored the waste of human and economic resources implicit in the arms race and the large-scale expenditures on armaments. Not only could these resources have been better used in the cause of economic and social development but also it is now well recognized that the arms race has only exacerbated international insecurity. It is furthermore well recognized by the international community that despite various initiatives and discussions in various forums little progress has been made in the field of disarmament since the establishment of the United Nations, whose objectives under the Charter include disarmament.

The Socialist People's Libyan Arab Jamahiriya was, therefore, one of those States that strongly supported the convening of a special session of the General Assembly devoted to disarmament. Our support for this initiative is based on our belief that the said special session would provide an excellent forum for multilateral discussions by sovereign States on an equal footing of such world-wide problems as the arms race and international security. The special session will be an appropriate forum for discussions on issues that are extremely complex and inextricably interrelated, for it is widely recognized that such problems as the arms race, international insecurity and the consequences of acts of aggression and other hostile practices, as they are perpetrated by Zionist and other racist régimes, are just such interrelated issues. The special session of the General Assembly devoted to disarmament will be in a position to arrive at balanced conclusions and assessments on these matters as well as fully taking into account those aspects and implications of disarmament affecting the achievement of the new international economic order. The Socialist People's Libyan Arab Jamahiriya believes that only if all these factors are taken into consideration on a global and comprehensive scale can progress be achieved in the field of disarmament.

The objectives of the special session of the General Assembly devoted to disarmament should therefore be to focus the attention of the international community on the question of disarmament and to make recommendations on certain priority issues. Among the priority issues and principles that are particularly important and urgent in the view of the Socialist People's Libyan Arab Jamahiriya are the following:

Full participation of all nuclear-weapon States must be secured, for the utmost priority must be given to the elimination of all arsenals of nuclear, chemical and other weapons of mass destruction;

Complete cessation of all nuclear-weapon tests;

Unequivocal renunciation by nuclear-weapon States of the use, or threat of use of such weapons against any State, especially non-nuclear-weapon States;

Nuclear-weapon States must undertake to respect nuclear-weapon-free zones and zones of peace and co-operation;

/...

The dissolution of military blocs, and the dismantling of foreign military bases and withdrawal of military forces from foreign territories;

Funds released as a result of measures achieved in the field of disarmament should be allocated to the economic and social development of the developing countries;

Free and equal access of all States to the technologies and technical information for the exploitation of nuclear energy for peaceful purposes.

The special session should, in accordance with its worthy and ambitious objectives, consider the formulation of a declaration calling upon all States to pledge to refrain from the use or threat of use of nuclear weapons. This declaration must be agreed upon and signed by all States and must be promulgated under the auspices of the United Nations and considered an international covenant.

The Socialist People's Libyan Arab Jamahiriya realizes that the field of disarmament is very complex and extensive and therefore considers that the special session of the General Assembly devoted to disarmament must be carefully prepared, if it is to achieve the desired results. Otherwise there is a risk that the special session may be merely a repetition of the work of the First Committee of the General Assembly, though at a higher level of representation. In this context, the special session of the General Assembly devoted to disarmament may wish to consider the convening of a world disarmament conference to further pursue and follow up on its objectives of achieving world disarmament under international control and thereby ensuring international security.

The Socialist People's Libyan Arab Jamahiriya takes this occasion to repeat its complete support for the United Nations efforts in the field of disarmament and assures of its active co-operation at the special session of the General Assembly devoted to disarmament.

UNITED NATIONS

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PREPARATORY COMMITTEE FOR THE SPECIAL SESSION OF THE GENERAL ASSEMBLY DEVOTED TO DISARMAMENT

A BRIEF SYNOPSIS OF DISARMAMENT AND ARMS LIMITATION NEGOTIATIONS SINCE 1945 - INCLUDING THEIR RESULTS - CARRIED OUT WITHIN THE FRAMEWORK OF THE UNITED NATIONS, ON A REGIONAL BASIS, OR BILATERALLY, WITH INDICATION, WHERE APPROPRIATE, OF THE PROCEDURES FOLLOWED TO KEEP THE UNITED NATIONS INFORMED

Working paper prepared by the Secretariat

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I. INTRODUCTION

1. By resolution 31/189 of 21 December 1976, the General Assembly decided to convene a special session devoted to disarmament, to be held in New York in May/June 1978. It further decided to establish a Preparatory Committee for the Special Session of the General Assembly Devoted to Disarmament, composed of 54 Member States appointed by the President of the Assembly on the basis of equitable geographical distribution, with the mandate of examining all relevant questions relating to the special session, including its agenda, and to submit to the Assembly at its thirty-second session appropriate recommendations thereon.

2. The General Assembly also requested the Secretary-General to render the Preparatory Committee all necessary assistance, including the provision of essential background information, relevant documents and summary records.

3. At its 14th meeting on 20 May 1977, the Preparatory Committee requested the Secretariat to prepare certain working papers. Included among them was a "brief synopsis of disarmament and arms limitation negotiations since 1945 - including their results - carried out within the framework of the United Nations, on a regional basis, or bilaterally, with indication, where appropriate, of the procedures followed to keep the United Nations informed".

4. In response to this request of the Preparatory Committee, the Secretariat has prepared this working paper, which draws mainly on the publication The United Nations and Disarmament 1945-1970 and its supplement The United Nations and Disarmament 1970-1975 and other United Nations documents. The synopsis is by no means exhaustive, since it covers only those negotiations on which information is available to the Secretariat.

II. DISARMAMENT AND ARMS LIMITATION NEGOTIATIONS WITHIN THE FRAMEWORK OF THE UNITED NATIONS OR LINKED TO IT

1. General remarks

5. The United Nations Charter proclaimed as one of the Organization's primary purposes "to maintain international peace and security" (Article 1). In order to promote this purpose "with the least diversion for armaments of the world's human and economic resources" (Article 26), it conferred specific responsibilities in connexion with disarmament and the regulation of armaments on the General Assembly and the Security Council.

6. The General Assembly was empowered to consider "the principles governing disarmament and the regulation of armaments" and to make "recommendations with regard to such principles to the Members or to the Security Council or to both" (Article 11). The Security Council was made responsible for formulating, with the assistance of the Military Staff Committee (Article 47), "plans to be submitted to the Members of the United Nations for the establishment of a system for the regulation of armaments" (Article 26).

7. The use of the first atomic weapons in August 1945, shortly after the signing of the Charter, gave disarmament greater immediacy and an enhanced place in the sphere of international politics and security. Consequently, the General Assembly's first resolution 1 (I) established an Atomic Energy Commission with the urgent task of suggesting immediate plans to ensure that atomic energy would be used only for peaceful purposes. Later that year, in resolution 41 (I) of 14 December 1946, the General Assembly recognized the central role of disarmament in relation to peace and security. In February 1947, another body for disarmament negotiations, a Commission for Conventional Armaments, was established by the decision of the Security Council. It was entrusted with the task of preparing appropriate suggestions for the regulation and reduction of conventional armed forces and armaments. This constituted the initial framework and machinery for disarmament negotiations existing until 1952.

2. The Atomic Energy Commission (1946-1952)

8. According to resolution 1 (I) of 24 January 1946, the Commission was composed of one representative from each of those States represented on the Security Council, and Canada when it was not a member of the Council.

9. The Commission's terms of reference were set out under section 5 of the resolution, requesting it, inter alia, to make specific proposals for the elimination from national armaments of atomic weapons and of all other major weapons of mass destruction.

10. The Commission worked from June 1946 to July 1949, during which period considered various proposals for the international regulation of atomic energy put forward by its members. Due to substantive differences in approach between the Western Powers and the Soviet Union (to the regulation of atomic energy), the

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Commission soon reached an impasse in its work. The differences concerned, in particular, the stage at which atomic weapons should be prohibited and international control established, the question of international ownership or control of all phases of atomic energy activities, including research, and the application of the principle of unanimity in the Security Council when violations of an agreement were before it. Consequently, in July 1949 the Commission reported to the Security Council that the impasse still existed and that the differences were irreconcilable. 1/ In view of this, the General Assembly, by resolution 299 (IV), of 23 November 1949, requested the six permanent members of the Atomic Energy Commission to continue consultations and explore all possible avenues for progress in their negotiations.

11. The consultations of the six Powers, which opened in December 1949 in response to this request, ended without any results in January 1950, after the Soviet Union had decided to withdraw from the consultations in connexion with the participation of the "representative of the Kuomintang group". 2/

12. The Atomic Energy Commission did not meet again after 29 July 1949 and was dissolved on 11 January 1952 by General Assembly resolution 502 (VI).

13. Although established by the General Assembly, the Atomic Energy Commission was primarily responsible to the Security Council as provided under section 2 of resolution 1 (I). The Commission submitted three reports to the Security Council, 3/ which in turn transmitted them to the General Assembly. The Assembly considered these reports and by its resolution 191 (III) of 4 November 1948 approved the general findings and recommendations of the first report and the specific proposals of the second report, which thereafter constituted the United Nations plan for the control of atomic energy. As already stated, the Commission informed the Security Council on 29 July 1949 of the impasse it had reached in its work, this information being its last communication to the Security Council.

3. The Commission for Conventional Armaments (1947-1952)

14. The Commission for Conventional Armaments was established by the Security Council on 13 February 1947, with the same composition as the Council. It was instructed to submit to the Council, within three months, proposals: (a) for the general regulation and reduction of armaments and armed forces; and (b) for practical and effective safeguards in connexion with the general regulation and reduction of armaments. During the negotiations, substantial differences emerged again between the Soviet Union and the Western Powers on the competence of the Commission to deal with atomic weapons.

15. The Commission held its last meeting in April 1950, when the Soviet Union withdrew from its work in connexion with the participation of "the representative of the Kuomintang group". 4/ The Commission was dissolved by the Security Council in February 1952 in accordance with the recommendations of the General Assembly in resolution 502 (VI) of 11 January 1950.

16. The Commission regularly submitted its reports to the Security Council, which in turn placed them before the General Assembly. In this way the General Assembly

was kept informed of the work of the Commission and also directed it through various recommendations addressed to the Security Council, which were contained in resolution 192 (III) of 19 November 1948 and resolution 300 (IV) of 5 December 1949, both dealing, inter alia, with the submission of information on conventional armaments and armed forces and its verification.

4. The Disarmament Commission (1952-1965)

17. The impasse in the two Commissions by 1950 was an important factor in bringing about their consolidation into a single Disarmament Commission. The Commission was established by General Assembly resolution 502 (VI) of 11 January 1952 and was placed under the Security Council. Like its predecessors, the Disarmament Commission was composed of the members of the Security Council and Canada. It was the main subsidiary disarmament body until the end of 1957.

18. The Commission's terms of reference were set out in paragraphs 3-6 of resolution 502 (VI), the main objective being the regulation, limitation and balanced reduction of all armed forces and all armaments in a co-ordinated comprehensive programme by stages, including measures for the elimination of all major weapons adaptable to mass destruction, and for effective international control of atomic energy to ensure the prohibition of atomic weapons and the use of atomic energy for peaceful purposes only. Under paragraph 7 of the resolution, the Commission was directed to report periodically to the Security Council and to the General Assembly, or to the Members of the United Nations when the Assembly was not in session.

19. When the Commission met in February 1952, different views were expressed on the substantive issues placed before it. These differences were, in fact, based on the same approaches to the question of disarmament which the two sides had advocated during the previous period of negotiation. Thus, the Soviet Union considered that the Commission should place emphasis on the immediate prohibition of atomic weapons and the reduction of armaments and armed forces, whereas the Western Powers proposed over-all numerical limitations on the size of armed forces as part of a comprehensive plan for the regulation, limitation and balanced reduction of armed forces and armaments.

20. Since the differences between the two sides proved insurmountable, on 19 April 1954 the Disarmament Commission, acting on the suggestion of the General Assembly, created a Sub-Committee consisting of Canada, France, the Soviet Union, the United Kingdom and the United States, and entrusted it with the task of searching for agreement on a comprehensive and co-ordinated plan of disarmament. The Sub-Committee met in private from 1954 to 1957, reporting periodically to the Disarmament Commission and to the General Assembly.

21. After a period of impasse, negotiations in the Sub-Committee centered, in mid-1955, on a number of issues, the most important being with regard to: (a) the ceilings on the armed forces of the permanent members of the Security Council, (b) the prohibition of nuclear weapons when 75 per cent of the reduction of armed forces had been completed and (c) the need of an effective system of control.

22. Following the July 1955 Summit meeting of the Heads of Government of France, the USSR, the United Kingdom and the United States in Geneva, new proposals were submitted to the Sub-Committee, which again reflected serious differences in priorities of various measures. The United States, for example, proposed a plan for aerial inspection to guard against the possibility of large-scale surprise attacks, while the Soviet Union proposed that, as a preliminary step, the nuclear Powers undertake not to be the first to use nuclear weapons. As for aerial photography, the Soviet Union stated that without regard for the need to reduce armaments and to prohibit atomic weapons it would be less effective. Therefore, it expressed preference for a system of ground control posts together with arms reductions and the prohibition of atomic weapons. The United States, however, emphasizing that an effective method of inspection and control was the first requirement of an armaments agreement, placed in August 1955 a reservation on all of its "pre-Geneva substantive positions" taken in the Sub-Committee or in the Disarmament Commission or in the United Nations, pending the outcome of the study, jointly or separately, of inspection methods.

23. In view of the lack of progress towards agreement on a co-ordinated comprehensive programme, attention graudally shifted towards various partial measures that could be implemented prior to reaching agreement or a comprehensive plan. A number of specific proposals of a partial nature were submitted both in the Sub-Committee and the Disarmament Commission, again reflecting substantial differences in approach. Thus, while the four Western States placed particular emphasis on the limitation and reduction of conventional armaments and armed forces with an appropriate control system, the Soviet Union expressed interest in an early discontinuance of nuclear-weapon tests and an undertaking not to use nuclear weapons. In view of irreconcilable positions, the Sub-Committee ended its work in 1957.

24. Thereafter, the Disarmament Commission began to play a less prominent role in disarmament negotiations, notwithstanding the decision of the Assembly in 1957 to increase the Commission's size by the addition of 14 new members and, in 1958, to enlarge it again to include all the Members of the United Nations. Efforts in 1958 to reconvene the new Disarmament Commission were unsuccessful. Since then, it held only two sessions - in 1960 and in 1965, with no results as far as disarmament agreements were concerned. At its 1960 session the Commission called for the earliest resumption of negotiations, while in 1965 it accorded priority to the conclusion of a comprehensive test ban and an agreement on the non-proliferation of nuclear weapons.

5. Conference of Experts on Detection of Nuclear Tests

25. In July 1958, following an exchange of views between the Heads of Government of the USSR and the United States, a conference of experts from four Western countries (the United States, the United Kingdom, France and Canada) and four Eastern European countries (the USSR, Czechoslovakia, Poland and Romania) was convened in Geneva to study the possibility of detecting violations of a possible agreement on suspension of nuclear weapon tests. It agreed on a report 5/ that was submitted to the respective Governments and to the United Nations. The report

concluded that the methods for detecting nuclear explosions made it possible, within limits, to detect and identify such explosions. It also considered it technically feasible to establish a control system to detect violations of an agreement on the suspension of nuclear weapon tests. The Secretary-General was represented at the Conference by a personal representative.

6. Conference on the Discontinuance of Nuclear Weapon Tests

26. Later in the year, a tripartite conference of the Soviet Union, the United States and the United Kingdom began work in Geneva on a treaty on the suspension of nuclear weapon tests, on the basis of the findings of the conference of experts. The Conference on the Discontinuance of Nuclear Weapon Tests began in October 1958 and adjourned sine die in 1962, when substantial differences on the issue of verification made further progress impossible. The work of the Conference was reviewed each year by the General Assembly. By resolutions 1402 A and B (XIV), 1577 (XV) and 1578 (XV), the Assembly requested the States concerned to report to it and the Disarmament Commission on the results of their negotiations, while the later resolution also requested that information be provided to the Commission on the progress of the negotiations. The Conference was attended by a personal representative of the Secretary-General.

7. Conference of Experts on Prevention of Surprise Attack

27. Again on the basis of an understanding between the Governments of the United States and the Soviet Union, a conference of experts to study possible measures which might be helpful in preventing surprise attack also took place in Geneva in 1958. It was attended by experts of five Western countries (the United States, the United Kingdom, France, Canada and Italy) and five Eastern European countries (the USSR, Czechoslovakia, Poland, Romania and Albania), as well as by a personal representative of the Secretary-General. Its report was submitted to the respective Governments, which in turn transmitted it to the United Nations. 6/ The conference was suspended at the end of 1958 after divergent views emerged on its terms of reference, and never reconvened.

8. Conference of the Ten-Nation Committee on Disarmament

28. The two-sides, East-West pattern of representation was continued in the Conference of the Ten-Nation Committee on Disarmament, which was established by a decision of the Foreign Ministers of France, the USSR, the United Kingdom and the United States in 1959. The 10 participating countries were: Bulgaria, Czechoslovakia, Poland, Romania and the USSR on one side, and Canada, France, Italy, the United Kingdom and the United States on the other. The Organization's ultimate responsibility for disarmament was recognized by the major Powers 7/ which agreed that the Committee should present reports on its work to the Disarmament Commission and through it to the General Assembly and the Security Council.

29. During the conference, the Secretary-General of the United Nations found it necessary to raise some questions resulting from the conduct of negotiations outside the formal framework of the United Nations. On 28 April 1960, the Secretary-General addressed the Ten-Nation Conference on this subject. 8/ He stated that policies on disarmament, pacific settlement of disputes and action in view of breaches of the peace, were inseparable and integrated elements of the policies of Member States within the framework of and through the United Nations. Recognizing that negotiations were bound to reach a point where a study of the use of the United Nations in support of disarmament would be necessary, he contended that the 10-nation body was not an organ of the United Nations.

30. The work of the Conference of the Ten-Nation Committee on Disarmament was, however, terminated soon thereafter, in June 1960, as a result of the withdrawal of the five Eastern European delegations in the aftermath of the U-2 incident and the crisis atmosphere resulting from the abortive summit meeting scheduled for Paris in June.

9. The Conference of the Eighteen-Nation Committee on Disarmament and the Conference of the Committee on Disarmament

31. Following the termination of the Conference of the Ten-Nation Committee on Disarmament, the conference machinery underwent a new change. In 1961, an agreement was reached between the Soviet Union and the United States, endorsed by the General Assembly in resolution 1722 (XVI), to establish the Eighteen-Nation Committee on Disarmament (ENDC), which in fact added to the original 10 countries of the 1960 conference eight non-aligned members: Brazil, Burma, Ethiopia, India, Mexico, Nigeria, Sweden and the United Arab Republic. The Government of France decided not to participate in it, expressing the hope that it might be possible later to discuss the question of disarmament among the Powers that could contribute effectively to its solution. The ENDC opened in Geneva on 15 March 1962 at the foreign-minister level.

32. In August 1969 the membership of the Committee was enlarged from 18 to 26 by the inclusion of Argentina, Hungary, Japan, Mongolia, Morocco, the Netherlands, Pakistan and Yugoslavia and the Committee changed its name to Conference of the Committee on Disarmament (CCD). The General Assembly endorsed the enlargement at its next regular session by resolution 2602 B (XXIV), expressing at the same time its conviction that, for future changes in the composition of the Committee, the procedure followed in 1961 should be observed.

33. In 1974, the CCD invited the German Democratic Republic, the Federal Republic of Germany, Iran, Peru and Zaire to become members as from 1 January 1975. The General Assembly endorsed the agreement by resolution 3261 B (XXIX) of 9 December 1974, expressing the conviction that to effect any future change in the composition of the CCD the same procedure as had just been followed should be observed.

34. Since its establishment in 1962, the Committee has been meeting regularly. Its work is reviewed by the General Assembly, to which it submits its annual reports and, when requested by the Assembly to do so, some special reports. A personal representative of the Secretary-General attends the sessions of the Committee. Annually, at the first meeting of the Committee, the Secretary-General addresses a message to the Conference stating his views on disarmament questions.

35. As far as general and complete disarmament is concerned, the major documents before the ENDC during the first session in 1962 were the draft Treaty on General and Complete Disarmament under Strict International Control, submitted by the Soviet Union on 15 March and the United States' "Outline of basic provisions of a treaty on general and complete disarmament in a peaceful world" submitted on 18 April. These documents, as amended from time to time in the course of the following three years, remain the basis of discussions on general and complete disarmament.

36. With regard to collateral measures, for a number of years the Soviet Union and the United States have each had their own preferences, which they have put forward sometimes singly and sometimes grouped, with varying degrees of emphasis.

37. Among the measures favoured by the Soviet Union and its allies have been: discontinuance of nuclear-weapon tests, prohibition of the use of nuclear weapons, nuclear-weapon-free zones, non-proliferation of nuclear weapons, withdrawal of foreign troops, elimination of foreign military bases, reduction of the total number of armed forces of States, reduction in military budgets and a non-aggression pact between NATO and the Warsaw Pact Powers. These, as well as some other collateral measures were contained in the memoranda submitted by the Soviet Union in January and December 1964. Most of the previously favoured measures were also put forward in a memorandum of 1 July 1968 which also stressed several new items, including the question of chemical and biological weapons and the prohibition of military use of the sea-bed. The memorandum of 28 September 1976 also contained a number of suggestions concerning the various collateral measures of arms regulation and disarmament, including some new ones such as the prohibition of the development of new types and systems of weapons of mass destruction.

38. For its part, the United States and its allies have given priority to the cessation or limitation in the production of fissionable material for military purposes, the transfer of agreed stocks to peaceful uses, non-proliferation of nuclear weapons, a nuclear test ban, a freeze on strategic nuclear delivery vehicles, the reduction of bombers, measures to reduce the risk of war by surprise attack, accident or miscalculation and regional disarmament.

39. The non-aligned members of the Committee, from their part, have also supported consideration of a number of collateral measures. To this effect they have, individually or jointly, put forward various proposals. They have expressed particular preference for the complete discontinuance of nuclear-weapon tests, non-proliferation of nuclear weapons, both horizontal and vertical, prohibition of chemical and biological weapons, prevention of an arms race in outer space and on the sea-bed and the establishment of nuclear-weapon-free zones.

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40. Some of these proposals for collateral measures led to specific agreements, most of them worked out in the ENDC and the CCD. The agreements concluded in this body and transmitted in its reports to the General Assembly were the following:

(a) Treaty on the Non-Proliferation of Nuclear Weapons, 9/ signed at London, Moscow and Washington on 1 July 1968. The General Assembly commended the Treaty in resolution 2373 (XXII) of 12 June 1968;

(b) 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, 10/ signed at London, Moscow and Washington on 11 February 1971. The General Assembly commended the Treaty in resolution 2660 (XXV) of 7 December 1970;

(c) Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction, 11/ signed at London, Moscow and Washington on 10 April 1972. The General Assembly commended the Convention in resolution 2826 (XXVI) of 16 December 1971;

(d) Convention on the Prohibition of Military or any Other Hostile Use of Environmental Modification Techniques, 12/ signed at Geneva on 18 May 1977. The General Assembly referred the Convention to all States for their consideration, signature and ratification by resolution 31/72 of 10 December 1976.

41. The Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Under Water 13/ was signed in Moscow on 5 August 1963 by the Foreign Ministers of the Soviet Union, the United States and the United Kingdom, in the presence of the Secretary-General of the United Nations. The Treaty was the immediate result of talks held in Moscow among the three Powers, although intensive negotiations had been conducted previously in the ENDC. The General Assembly noted the Treaty with approval by resolution 1910 (XVIII) of 27 November 1963.

42. All the above-mentioned agreements are registered with the Secretariat of the United Nations, in accordance with Article 102 of the Charter, except for the Convention on the Prohibition of Military or any Other Hostile Use of Environmental Modification Techniques, which is not yet in force.

43. Negotiations were also held in the ENDC on the outline of a draft treaty on the prohibition of the orbiting or stationing in outer space of nuclear weapons and other weapons of mass destruction, submitted by Mexico in 1963. 14/ On 17 October of the same year, the General Assembly approved by acclamation resolution 1884 (XVIII), which called upon all States to refrain from such activities. Thereafter, the question was mainly considered by the Committee on the Peaceful Uses of Outer Space.

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10. The Committee on the Peaceful Uses of Outer Space

44. As stated above, negotiations on an arms limitation agreement in outer space continued in this Committee and led to the conclusion 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, 15/ signed at London, Moscow and Washington on 27 January 1967. The General Assembly commended the Treaty in resolution 2222 (XXI) of 14 December 1966.

11. First and Second Conferences of Government Experts on the Reaffirmation and Development of International Humanitarian Law Applicable in Armed Conflicts

45. These Conferences were held in Geneva, under the auspices of the International Committee of the Red Cross (ICRC), in 1971 and 1972. At the Second Conference several proposals were submitted for the prohibition of the use of weapons which might cause unnecessary suffering or have indiscriminate effects.

46. The United Nations was represented at both Conferences and the Secretary-General submitted two reports on the meetings to the General Assembly. 16/

12. Diplomatic Conference on the Reaffirmation and Development of International Humanitarian Law Applicable in Armed Conflicts

47. At the first session of this Conference, held in Geneva between 20 February and 29 March 1974, an ad hoc committee was set up to examine the question of the prohibition or restriction of use of specific categories of conventional weapons which may cause unnecessary suffering or have indiscriminate effects, such as incendiary weapons. The issue was subsequently discussed at a Conference of Government Experts held in Lucerne later that year, in which such weapons were reviewed from the military, technical and legal points of view.

48. The second session of the Diplomatic Conference met in Geneva between 3 February and 18 April 1975. Its ad hoc committee continued to discuss specific proposals for banning or restricting the above-mentioned weapons. Finally, it was decided to held a second session of the Conference of Government Experts, which took place at Lugano early in 1976. However, it was not possible to reach a consensus on any of the proposals before the Conference.

49. The second meeting of experts was followed by a third and fourth session of the Diplomatic Conference, during which no agreement was achieved on the prohibition or restriction of use of the conventional weapons under discussion. However, the Conference adopted by consensus a resolution recommending that a conference be convened not later than 1979 with a view to reaching agreement on the limitation of use of certain specific conventional weapons. It also invited the General Assembly at its thirty-second session to take any further action that may be necessary for the holding of the Conference in 1979, in the light of the results of consultations to be held in accordance with the resolution.

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50. Since the adoption of resolution 2852 (XXVI) which requested the Secretary-General, with the help of governmental experts, to prepare a report on napalm and other incendiary weapons, the General Assembly has kept the question of the prohibition of certain specific conventional weapons under permanent review. The Secretary-General was invited to participate at the Diplomatic Conference and, accordingly, submitted to the General Assembly a report on each of the sessions of the Conference. 17/

13. Conference of Non-Nuclear-Weapon States

51. In conformity with resolution 2346 B (XXII) of the General Assembly, the Conference of Non-Nuclear-Weapon States met in Geneva from 29 August to 28 September 1968. The Conference adopted a Declaration, as well as a number of resolutions on substantive issues relating to measures to assure the security of non-nuclear-weapon States, the establishment of nuclear-weapon-free zones, effective measures for the prevention of further proliferation of nuclear weapons, the cessation of the nuclear arms race at an early date and nuclear disarmament and programmes for co-operation in the field of peaceful uses of atomic energy. The text of the Final Document was circulated as an official document of the General Assembly 18/ at the request of the President of the Conference. 19/ In view of its resolution N, which invited the General Assembly to consider the best way and means for the implementation of the decisions taken by the Conference, it was decided to include in the agenda of the twenty-third session of the Assembly an additional item entitled "Conference of Non-Nuclear-Weapon States: Final Document of the Conference". At subsequent sessions of the General Assembly questions relating to this Document have also been considered.

14. International Atomic Energy Agency

52. Article III.A.5 of the Statute of IAEA provides that the Agency is authorized "to establish and administer safeguards designed to ensure that special fissionable and other materials, services, equipment, facilities and information made available by the Agency or at its request or under its supervision or control are not used in such a way as to further any military purpose; and to apply safeguards, at the request of the parties, to any bilateral or multilateral arrangement, or at the request of a State, to any of that State's activities in the field of atomic energy".

53. In accordance with article III of NPT, "each non-nuclear-weapon State Party to the Treaty undertakes to accept safeguards, as set forth in an agreement to be negotiated and concluded with the International Atomic Energy Agency in accordance with the Statute of the International Atomic Energy Agency and the Agency's safeguards system, for the exclusive purpose of verification of the fulfilment of

its obligations assumed under this Treaty with a view to preventing diversion of nuclear energy from peaceful uses to nuclear weapons or other explosive devices ..."

54. Article 13 of the Treaty for the Prohibition of Nuclear Weapons in Latin America states that "each Contracting Party shall negotiate multilateral or bilateral agreements with the International Atomic Energy Agency for the application of its safeguards to its nuclear activities ..."

55. Information on safeguards agreements concluded under these provisions is submitted to the General Assembly in the annual reports of the Agency, which are considered both in the plenary and in the First Committee.

15. Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons

56. In accordance with article VIII of the NPT, a Review Conference of the Parties to the Treaty was held in Geneva from 5 to 30 May 1975. The Final Declaration adopted by the Conference, as well as interpretative statements made by delegations, were issued as an official document of the First Committee of the General Assembly at the request of Sweden. 20/ In addition, Mexico requested the circulation of a working paper submitted to the Conference on a draft Additional Protocol regarding the implementation of article VI of NPT. 21/

57. The Final Document of the Review Conference is in the custody of the archives of the United Nations. As regards the convening of a second Review Conference, the Final Declaration invited States parties to the Treaty which are Members of the United Nations to request the Secretary-General of the United Nations to include the following item in the provisional agenda of the thirty-third session of the General Assembly: "Implementation of the conclusions of the First Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons and establishment of a preparatory committee for the second Conference".

16. Review Conference of the Parties to the 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

58. In conformity with article VII of the Treaty, a Review Conference of the Parties to the Treaty was held in Geneva from 20 June to 1 July 1977. The Final Document of the Conference is in the custody of the archives of the United Nations. At its 12th plenary meeting, the Conference decided to request that its Final Document, which contains the Declaration and all the summary records, be circulated as an official document of the General Assembly. 22/

17. Third United Nations Conference on the Law of the Sea

59. An informal composite negotiating text 23/ is before the Conference as a basis for further negotiations. Although it does not deal strictly with disarmament issues, some of its draft articles are related to matters that may have relevance for future disarmament and arms limitation talks. Article 19 on the meaning of innocent passage provides that passage of a foreign ship shall be considered to be prejudicial to the peace, good order or security of the coastal State, if in the territorial sea it engages, inter alia, in any of the following activities:

(a) Any threat or use of force against the sovereignty, territorial integrity or political independence of the coastal State;

(b) Any exercise or practice with weapons of any kind;

(c) The launching, landing or taking on board of any aircraft or any military device.

60. Article 88 of the informal composite negotiating text states that the high seas should be reserved for peaceful purposes, while article 141 envisages that the sea-bed and ocean floor and subsoil thereof beyond the limits of national jurisdiction should be open to use exclusively for peaceful purposes by all States, whether coastal or land-locked, without discrimination and without prejudice to the other provisions of the text.

61. In his annual report on the work of the Organization, the Secretary-General submits regularly to the General Assembly information on the activities of the Conference.

18. The General Assembly

62. In pursuance of Article 11 of the Charter, which defines the responsibilities of the General Assembly with regard to disarmament matters, the Assembly has regularly had disarmament questions on its agenda. While most disarmament items are allocated to the First Committee, some items are considered by the plenary only and, occasionally, by other Main Committees.

63. The General Assembly has thus provided guidelines for the work of its subsidiary organs, as well as other bodies dealing with disarmament. Having the widest membership, the General Assembly is the most representative body for the review of disarmament questions. In order to facilitate consideration of various important disarmament issues, which were not on the agenda of its subsidiary organs or other negotiating bodies, the General Assembly has in recent years established several ad hoc committees. The work of the Ad Hoc Committee on the Indian Ocean and the Ad Hoc Committee on the World Disarmament Conference is still under way.

III. REGIONAL DISARMAMENT AND ARMS LIMITATION NEGOTIATIONS

1. The Antarctic Treaty 24/

64. On 1 December 1959 the Antarctic Treaty was signed at Washington, D.C. by the Soviet Union, the United States, France, the United Kingdom and eight other Powers. Article I provides for the demilitarization of Antarctica and article V prohibits any nuclear explosions and the disposal of radio-active waste material in the area covered by the Treaty. An inspection system is also established in articles VII and VIII, all areas of Antarctica being open at all times to any observers designated in accordance with the relevant provisions of the Treaty.

65. The Antarctic Treaty is registered with the Secretariat of the United Nations, in accordance with Article 102 of the Charter.

2. Denuclearization of Latin America

66. The idea of the denuclearization of Latin America was first suggested by Bolivia, Brazil, Chile, Ecuador and Mexico in the early 1960s. This question was included as a separate item in the agenda of the eighteenth session of the General Assembly in 1963, which in its resolution 1911 (XVIII) noted with satisfaction the initiative and expressed the hope that the Latin American States would initiate studies concerning measures to achieve its aims. In 1965, the General Assembly had before it the Final Act of the Preliminary Meeting on the Denuclearization of Latin America, 25/ which had been held in Mexico City in November 1964. Pursuant to a decision adopted at this meeting, a Preparatory Committee was established to prepare a preliminary draft of a treaty for the denuclearization of Latin America. The General Assembly was kept informed of the progress of the negotiations in the Preparatory Committee, whose Chairman transmitted to the Secretary-General the Final Act of each of its sessions with the request that it be distributed as an official document of the Assembly. 26/

67. The Treaty for the Prohibition of Nuclear Weapons in Latin America 27/ (Treaty of Tlatelolco) and its Protocols were opened for signature in Mexico City on 14 February 1967. In its resolution 2286 (XXII), the General Assembly welcomed the Treaty with special satisfaction and, since then, it has been kept informed of developments relating to its implementation, such as the establishment of the Agency for the Prohibition of Nuclear Weapons in Latin America 28/ and signatures and ratifications of the Treaty and its two Additional Protocols. In this respect, the General Assembly has adopted since 1970 a number of resolutions appealing to the States contemplated in the Protocols to sign and ratify them. The Treaty for the Prohibition of Nuclear Weapons in Latin America and its Additional Protocols are registered with the Secretariat of the United Nations, in conformity with the provisions of Article 102 of the Charter.

3. Denuclearization of Africa

68. In 1964, the Heads of State and Government of the Organization of African Unity approved the Declaration on the Denuclearization of Africa, which solemnly declared their readiness to undertake, through an international agreement to be concluded under United Nations auspices, not to manufacture or control atomic weapons. At the request of 34 African States, the Declaration was issued as a document of the General Assembly. 29/

69. In resolution 2033 (XX) the General Assembly endorsed the Declaration and expressed the hope that the African States would initiate studies to implement it. Thereafter the Assembly has adopted resolutions 3261 E (XXIX), 3471 (XXX) and 31/69, reaffirming its call upon all States to respect and abide by the Declaration on the Denuclearization of Africa.

4. Conference on Security and Co-operation in Europe

70. The Final Act of this Conference, adopted on 1 August 1975, contains provisions concerning prior notification of military manoeuvres and exchange of observers to attend them, as well as prior notification of military movements and other confidence building measures. The Final Act also refers to disarmament, expressing the conviction of participating States to take effective measures as steps towards the ultimate achievement of general and complete disarmament under strict and effective international control.

71. Since the adoption of the Final Act of the Conference, many references have been made in the statements at the General Assembly stressing its significance and its main provisions. The section relating to disarmament has been included in one of the background papers prepared by the Secretariat for the Preparatory Committee. 30/

5. Mutual reduction of forces and associated measures in Central Europe

72. After preparatory talks which lasted from 31 January to 28 June 1973, formal negotiations opened in Vienna on 30 October. Negotiations are continuing, but no results have been announced.

73. The United Nations is not officially informed of the negotiating process. However, the States participating in the negotiations and other States Members have frequently referred to the importance of these talks at various sessions of the General Assembly since 1973, expressing their hope that they would soon lead to the solution of the issues under discussion.

6. Declaration of Ayacucho

74. On 9 December 1974 Argentina, Bolivia, Chile, Colombia, Ecuador, Panama, Peru and Venezuela adopted in Lima this Declaration, in which they express their commitment to create conditions conducive to effective arms limitation, and to stop the acquisition of arms for aggressive ends. They also condemn the use of nuclear energy for other than peaceful purposes.

75. At the 1975 session of the CCD, Peru reported the agreement reached among those countries. 31/ At the request of the above-mentioned States, the text of the Declaration was issued as a document of the General Assembly on 28 January 1975. 32/

7. Group of nuclear-supplier States

76. Since 1975 this group has reportedly been holding meetings in London on nuclear export policy. Although not dealing with weapons or weapon-systems and not regional in their membership, these talks are held on a multilateral basis. They are concerned with preventing the diversion of exported nuclear material and equipment from peaceful purposes to the manufacture of nuclear weapons or other nuclear explosive devices.

77. The consultations among members of the group, now 14 States, are private. Official information on their results is not available at the United Nations, but many references to them are found in statements made in the General Assembly and the CCD.

IV. BILATERAL DISARMAMENT AND ARMS LIMITATION NEGOTIATIONS

1. Strategic Arms Limitation Talks

78. Following the opening for signature of the Treaty on the Non-Proliferation of Nuclear Weapons on 1 July 1968, the United States and the Soviet Union announced their intention to enter into bilateral discussions on the "limitation and reduction of both offensive and defensive strategic nuclear-weapon delivery systems and systems of defense against ballistic missiles". After a preliminary exchange of views at meetings held in Helsinki in November-December 1969, the strategic arms limitation talks (SALT) opened in Vienna in April 1970. As a result of the negotiations, several agreements between the two sides have been concluded in subsequent years.

79. On 26 May 1972, two agreements were signed in Moscow: an Interim Agreement on Certain Measures with respect to the Limitation of Strategic Offensive Arms, with a Protocol, and a Treaty on the Limitation of Anti-Ballistic Missile Systems. The texts of the Agreements were issued as a United Nations document 33/ on 3 November 1972 at the request of Mexico, which drew attention to the need for the General Assembly to be kept informed of the progress of all negotiations and other acts concerning disarmament "in whatever forum and form they may take place". Subsequently, the texts were issued as a document of the CCD, also at the request of Mexico. 34/ On 2 August 1974, both agreements were registered with the Secretariat by one of the Parties, 35/ in conformity with Article 102 of the Charter.

80. During the second phase of the SALT negotiations, which opened in Geneva in November 1972, the Soviet Union and the United States signed in Washington in June 1973 two agreements on Basic Principles of Negotiations on the Further Limitation of Strategic Offensive Arms and on the Prevention of Nuclear War. The texts of these agreements were circulated at the twenty-eighth session of the General Assembly at the request of the two signatories. 36/ In 1974, they were also issued as documents of the CCD at the request of Mexico. 37/ As in the previous case, the agreements have been registered with the Secretariat by one of the Parties. 38/

81. On 3 July 1974 the Soviet Union and the United States signed in Moscow a Protocol to the Treaty on the Limitation of Anti-Ballistic Missile Systems and the Treaty on the Limitation of Underground Nuclear Weapon Tests, with a Protocol. The latter Treaty and its Protocol are not yet in force. All these documents were circulated, at the request of the two parties, as documents of the General Assembly 39/ and the CCD. 40/

82. At the USSR-United States summit meeting in Vladivostok, a joint statement was issued on 24 November 1974 giving guidance for further negotiations on the limitation of strategic offensive arms, by which the parties reaffirmed their intention to conclude a formal agreement on the limitation of strategic offensive arms to last through 1985. The agreement has not been concluded yet. The Joint

Statement was circulated, at request of the two sides, as a document of the General Assembly on 25 Novemb. 1975. 41/ On 28 November Mexico requested the circulation, as a First Committee document, of paragraphs concerning the Joint Statement extracted from a statement by the United States in the CCD. 42/

83. Most recently, on 28 May 1976 the Soviet Union and the United States signed the Treaty on the Underground Nuclear Explosions for Peaceful Purposes, together with a Protocol and an Agreed Statement, which are not in force. At the request of the Parties, these texts were issued as documents of the General Assembly 43/ and the CCD. 44/ In pursuance of General Assembly resolution 3484 A (XXX), which invited the Soviet Union and the United States to provide information on their consultations for the conclusion of the agreement envisaged in article V of NPT, the Secretary-General reported to the Assembly that he had received a letter from the Permanent Representatives of the two Powers concerned transmitting the texts of that Treaty, its Protocol and the Agreed Statement. 45/

84. At each of its regular sessions since 1972, when it approved resolution 2932 B (XXVII), the General Assembly has adopted resolutions requesting the two sides to keep it informed of the progress of their negotiations. While they have made regular references to their talks and to the results achieved so far in their statements in the General Assembly and CCD, both parties have held the view that the negotiations were not within the purview of the General Assembly and should therefore proceed along the lines set by the States concerned. As indicated previously, most of the SALT agreements have been registered in accordance with Article 102 of the Charter, and have been or will be published by the United Nations as part of the list of treaties recorded with the Secretariat.

2. Other bilateral negotiations between the Soviet Union and the United States

85. Several agreements have been concluded as a result of these negotiations, all of them registered with the Secretariat:

(a) Memorandum of Understanding Regarding the Establishment of a Direct Communications Link, signed at Geneva on 20 June 1963; 46/

(b) Agreement on Measures to Improve the USA-USSR Direct Communications Link, 47/ signed at Washington on 30 September 1971, and amended by an exchange of letters on 29 April 1975; 48/

(c) Agreement on Measures to Reduce the Risk of Outbreak of Nuclear War, signed at Washington on 30 September 1971; 49/

(d) Agreement on the Prevention of Incidents on and over the High Seas, signed at Moscow on 25 May 1972; 50/

(e) Protocol to the Agreement on the Prevention of Incidents on and over the High Seas, signed at Washington on 22 May 1973. 51/

3. Bilateral negotiations between France and the Soviet Union

86. Two agreements have been concluded between the two Powers:

(a) Agreement on the Prevention of Accidental or Unauthorized Use of Nuclear Weapons, concluded through an exchange of letters on 16 July 1976. The text of these letters was circulated, at the request of the two Parties, as a Security Council document. 52/

(b) Franco-Soviet Declaration on the Non-Proliferation of Nuclear Weapons, signed at Rambouillet on 22 June 1977.

87. The Declaration has been transmitted to the Secretary-General, together with other documents signed at the Franco-Soviet summit meeting at Rambouillet. At the request of the Parties, they were issued as Security Council documents. 53/

4. Bilateral negotiations between the Soviet Union and the United Kingdom

88. At the request of both Parties, a joint United Kingdom-Soviet Declaration on the Non-Proliferation of Nuclear Weapons signed at Moscow on 17 February 1975, was circulated as a document of the General Assembly. 54/

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30. Document A/AC.187/30.

31. CCD/PV.655.

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33. Document A/C.1/1026.

34. Document CCD/394.

35. Statement of Treaties and International Agreements, ST/LEG./SER.A/330, p. 3.

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39. Document A/9698.

40. Document CCD/431.

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PREPARATORY COMMITTEE FOR THE SPECIAL SESSION OF THE GENERAL ASSEMBLY DEVOTED TO DISARMAMENT

A COMPARATIVE STUDY OF THE SCOPE ORIGINALLY PROPOSED OR AIMED AT IN DRAFT MULTILATERAL DISARMAMENT TREATIES OF A UNIVERSAL CHARACTER CONCLUDED UNDER UNITED NATIONS AUSPICES AND THE SCOPE FINALLY FIXED IN THOSE TREATIES, INCLUDING THE CONTEMPLATED MEASURES FOR EXPANDING THAT SCOPE

Working paper prepared by the Secretariat

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I. INTRODUCTION

1. By resolution 31/189B of 21 December 1976, the General Assembly decided to convene a special session devoted to disarmament, to be held in New York in May/June 1978. It further decided to establish a Preparatory Committee for the Special Session of the General Assembly Devoted to Disarmament, composed of 54 Member States appointed bythe President of the Assembly on the basis of equitable geographical distribution, with the mandate of examining all relevant questions relating to the special session, including its agenda, and to submit to the Assembly at its thirty-second session appropriate recommendations thereon.

2. The General Assembly also requested the Secretary-General to render the Preparatory Committee all necessary assistance, including the provision of essential background information, relevant documents and summary records.

3. At its meeting in May 1977, the Preparatory Committee requested the Secretariat to prepare certain working papers. Included among them was "A comparative study of the scope originally proposed or aimed at in draft multilateral disarmament treaties of a universal character concluded under United Nations auspicies and the scope finally fixed in those treaties, including the contemplated measures for expanding that scope".

4. In response to this request of the Preparatory Committee, the Secretariat has prepared this paper, which covers the following six multilateral disarmament treaties: Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Under Water (Partial Test Ban Treaty) of 5 August 1963; 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 Treaty) of 27 January 1967; Treaty on the Non-Proliferation of Nuclear Weapons (NPT) of 1 July 1968; 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 (Sea-Bed Treaty) of 11 February 1971; Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction (Biological Convention) of 10 April 1972; and Convention on the Prohibition of Military or any Other Hostile Use of Environmental Modification Techniques (ENMOD Convention) of 18 May 1977.

II. TREATY BANNING NUCLEAR WEAPON TESTS IN ATMOSPHERE, IN OUTER SPACE AND UNDER WATER (PARTIAL TEST BAN TREATY) */

Introduction

5. The suggestions for conclusion of an agreement to ban the testing of nuclear weapons, either as an independent measure on its own merits or as one item in an agreement on more comprehensive forms of disarmament was first suggested by India in 1954. It was, thereafter, discussed in the five-Power Sub-Committee of the Disarmament Commission as well as in the General Assembly. By the end of 1956, the initial positions of various countries on this question were as follows: the Soviet Union and India, maintaining that no significant testing could go undetected, called for an early and separate agreement on the banning of all nuclear tests, the provisions on supervision not being required; Yugoslavia urged conclusion of an agreement with such controls as might prove necessary; and the Western Powers regarded the limitation and eventual banning of nuclear testing, with adequate supervision, as part of a comprehensive disarmament programme.

6. Although consideration of the question continued, some progress was made only in mid-1958 when the United States and the Soviet Union agreed to convene a conference of experts to study the possibility of detecting violations of an agreement on the suspension of nuclear tests. The conference was held from 1 July to 21 August 1958 at Geneva. The work of the Conference and its report paved the way to convening the Conference on the Discontinuance of Nuclear Weapon Tests, with the participation of the Soviet Union, the United Kingdom and the United States. France made it known that it would not sign a test ban treaty unless it were accompanied by other measures of disarmament.

7. The Conference was held at Geneva from 31 October 1958 to January 1962. A voluntary suspension of nuclear-weapon tests by the negotiating powers went into effect at the time negotiations commenced in October 1958.

8. At the outset of the work of the Conference, the Soviet Union tabled a draft treaty which provided for an obligation by the three nuclear Powers to cease all tests of nuclear weapons. 1/ The United States and the United Kingdom, in rejecting the Soviet draft, emphasized that any agreement on the discontinuance of nuclear tests must be based on an effective international system of control and, also, be depended on progress being made on other disarmament issues. However, in a statement on 19 January 1959, the two Western Powers announced that they no longer considered a nuclear test suspension contingent on progress in other disarmament areas and made it clear that such an agreement depended only on the requirements of effective control. 2/ The question of control became then the main issue and the core of the negotiations.

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*/ The Treaty was open for signature on 5 August 1963 at Moscow. It entered into force on 10 October 1963.

1/ Official Records of the Geneva Conference on the Discontinuance of Nuclear Weapon Tests: Document GEN/DNT/PV.1, pp. 5-11.

2/ Document GEN/DNT/PV.37, pp. 3-10.

Question of the scope

9. On 11 February 1960 the United States, supported by the United Kingdom, presented to the Conference a proposal for "a phased treaty" which called for a ban on all tests in those environments where effective control could be established. 3/ The proposal was formulated as follows:

> "The first phase of the agreement--which could be put into effect in the near future--should provide for the cessation of all nuclear-weapon tests in the earth's atmosphere, in the oceans, and in outer space up to the greatest height with respect to which agreement can be reached on the installation of effective controls."

The United States also suggested that this phase should include provision for the cessation of underground nuclear tests above a seismic magnitude "threshold" of 4.75 (corresponding, according to U.S. estimates, to a 19-kiloton yield) since with regard to those events adequate control was feasible. For this purpose, it suggested two alternative systems of on-site inspections. It also stated that when a research programme resulted in improved capabilities for identification of small underground disturbances, the "threshold" could be progressively lowered to match such improvements.

10. The Soviet response was positive, in principle, but its counterproposal of 19 March 1960 did not provide for any on-site inspection of those events above seismic magnitude 4.75. 4/ It stated its readiness:

> "To conclude a treaty on the cessation of all nuclear-weapon tests in the atmosphere, in the oceans and in outer space, and of all underground tests which produce seismic oscillations of magnitude 4.75 conventional units or above."

In addition, it agreed to participate in a research programme with the view to improving capabilities for identification of such underground disturbances below this "threshold". The proposal and agreement were, however, based on the understanding that all parties to the treaty would "assume at the same time the obligation not to carry out during that period any nuclear-weapon tests producing seismic oscillations of magnitude 4.75 conventional units or below".

11. In a joint declaration of 29 March 1960, the United Kingdom and the United States agreed to the Soviet proposal provided that the moratorium would be for a fixed peiod only. 5/ Nevertheless, little further progress was made at the Conference due to differences which arose in connexion with other sensitive issues, such as the composition of the control commission and the question of decision-making in this body.

3/ Document GEN/DNT/PV.170, pp. 7-9.

4/ Document GEN/DNT/PV.188, pp. 10-14.

5/ Document GEN/DNT/PV.189, pp. 10-11.

12. When the Conference resumed its work early in 1961, the United States and the United Kingdom submitted on 18 April a draft treaty which incorporated a number of new elements. 6/ The scope was formulated as follows:

"1. Each of the Parties to this Treaty undertake, subject to the provisions of this Treaty and its Annexes:

A. to prohibit and prevent the carrying out of nuclear-weapon test explosions at any place under its jurisdiction or control and

B. to refrain from causing, encouraging, or in any way participating in, the carrying out of nuclear-weapon test explosions anywhere.

"2. The obligations under paragraph 1 of this Article shall apply to all nuclear-weapon test explosions except those underground explosions which are recorded as seismic events of less than magnitude 4.75."

The moratorium on underground tests below the 4.75 seismic threshold was fixed at three years. The proposal still required an international system of control concerning underground events above seismic magnitude of 4.75, although it reduced by two the number of control posts on Soviet territory and provided for a sliding scale of annual inspections ranging from twelve to twenty on-site inspections.

13. The deterioration in political relations between the two sides which became apparent in the second half of 1961 had a strong bearing not only on the progress of the negotiations but also on the conduct of their respective nuclear programmes. Thus, on 30 August 1961, the Soviet Government declared that it had been compelled, in order to strengthen its security, to take a number of steps, including the carrying out of experimental nuclear-weapon explosions. From 1 September to 4 November, the Soviet Union conducted a series of tests, mostly thermo-nuclear. The United States resumed underground testing on 15 September.

14. Upon the resumption of the Geneva Conference on 28 November 1961, the Soviet Union reiterated its opposition to any test ban treaty under international control while the arms race continued, and said that a new approach was necessary. To this end, it put forward a draft agreement on the discontinuance of nuclear weapon tests in the atmosphere, in outer space and under water, which provided for supervision of the ban to be carried out through the existing national means of detection and also for a moratorium on underground tests until a control system had been developed as part of a system of control over general and complete disarmament. The relevant provisions read as follows: 7/

Article I

"The States Parties to this Agreement solemnly undertake not to conduct tests of any kind of nuclear or thermonuclear weapons in the atmosphere, in outer space or under water.

...

6/ Document GEN/DNT/110.

7/ Document GEN/DNT/122.

Article III

"The States Parties to this Agreement under take not to conduct any underground tests of nuclear weapons until they have agreed together on a system of control over such tests as a constituent part of an international system of control over compliance with an agreement on general and complete disarmament."

15. The United States and the United Kingdom rejected the proposal, inter alia, because in their opinion it contravened the recommendations of the 1958 conference, as well as the terms of General Assembly resolution 1649 (XVI) calling for the establishment of international control over a test ban agreement.

16. After the Conference had adjourned in January 1962, the question of nuclear-weapon tests was taken up in the Eighteen-Nation Committee on Disarmament (ENDC) when it started its work in March that year. In fact, the question was continued by a Sub-Committee, composed of the same three nuclear-weapon Powers: the Soviet Union, the United Kingdom and the United States. Their initial positions in the Sub-Committee reflected, however, the same views that they had advocated in previous negotiations. In order to break the impasse in the negotiations the eight non-aligned members of the ENDC - Brazil, Burma, Ethiopia, India, Mexico, Nigeria, Sweden and the United Arab Republic - submitted, on 16 April 1962, a joint memorandum 8/ in which they emphasized the possibilities of establishing a system for continuous observations and effective control on a purely scientific basis. The memorandum also referred to the possibility of setting up an international commission, consisting of a limited number of highly qualified scientists, possibly from non-aligned countries, entrusted with processing all data and reporting on any nuclear explosions. All three nuclear-weapon Powers accepted the memorandum as one of the bases for negotiations. There was, however, a difference of opinion between them on the interpretation of the memorandum, in particular whether it set forth obligatory or permissive provisions for on-site inspection.

17. On 9 August 1962, the United States made a new move by proposing a comprehensive ban. Its proposal was still based on the principle of compulsory on-site inspection but it provided for: (a) an unspecified reduction in the annual number of on-site inspections, as compared with the previous proposal for a sliding scale of twelve to twenty; and, (b) reduction in the number of control posts from 180 to about 80, including a change in the manning of such posts - instead of being internationally manned and operated, the posts would accept an international observer but would be manned by nationals of the country being inspected.

18. On 27 August 1962, the United States and the United Kingdom submitted two alternative draft treaties. One was a comprehensive treaty in harmony with the proposals of 9 August, envisaging a ban on tests in all environments and making provision for a quota of on-site inspections in the case of suspicious underground events. 9/ The other contemplated a test ban in the three non-controversial environments - in the atmosphere, in outer space and under water -

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8/ Official Records of the Disarmement Commission, Supplement for January 1961 to December 1962, document ENDC/28.

9/ Ibid., ENDC/58.

without international verification. 10/ The United States and the United Kingdom, while stating that they preferred a comprehensive treaty, explained that the partial treaty was submitted as a first step, as the Soviet Union was still opposed to compulsory on-site inspection in a comprehensive treaty. They would not, however, accept an uncontrolled moratorium of underground tests in any form whatsoever. On 31 August, the United States and the United Kingdom proposed 1 January 1963 as the cut-off date for tests as part of either the comprehensive treaty or the partial one. The scope of the partial treaty, formulated in Article I, read:

"1. Each of the Parties to this Treaty undertakes to prohibit and prevent the carrying out of any nuclear-weapon tests explosion at any place under its jurisdiction or control:

(a) in the atmosphere, above the atmosphere, or in the territorial or high seas; or

(b) in any other environment if such explosion causes radioactive debris to be present outside the territorial limits of the State under whose jurisdiction or control such explosion is conducted.

"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 anywhere which would take place in any of the environments described, or have the effect prescribed, in paragraph 1 of this Article."

Both the comprehensive and partial drafts contained provisions concerning explosions for peaceful purposes which were to be permitted under strictly specified conditions.

19. The Soviet Union rejected the United States proposals of 9 August and the United States-United Kingdom comprehensive treaty on the grounds that they ran counter to the eight-Power memorandum and did not depart from the principle of obligatory on-site inspection. The Soviet Union also rejected the partial treaty on the ground that it excluded underground tests, but was not opposed to considering such a partial treaty if underground tests were voluntarily suspended until a final solution of the problem was reached. It supported a Mexican proposal that there should be a cessation of all tests from 1 January 1963. 11/

20. Expressing still its preference for a comprehensive ban the Soviet Union, on 10 December 1962, offered a new guarantee for effective control of such agreement. 12/ In addition to existing manned national means of detection, it proposed the use of automatic seismic stations ("black boxes"). Two or three such stations, the Soviet Union said, could be established on the territories of each of the nuclear-weapon Powers and some in the neighbouring countries. In the USSR, there were three major

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10/ Ibid., ENDC/59.

11/ Official Records of the Disarmament Commission, Supplement for January-December 1963, document ENDC/72.

12/ Document ENDC/PV.90, pp. 13-17.

seismic zones - the Far East, Central Asia and the Altai mountain region - where "black boxes" could be usefully located. The sealed boxes containing the instruments would be periodically replaced and carried from and to the headquarters of the international commission by Soviet personnel on Soviet aircraft, but personnel of the international body could participate in the delivery and removal of the "black boxes" with appropriate precautionary measures.

21. The United States agreed that the "black boxes" might be a useful adjunct to manned detection stations if used in sufficient numbers and if properly equipped, operated and located. It also noted that the proposed participation of international personnel in the placing and retrieval of the boxes had many interesting aspects. But it stated that such stations would not substantially decrease the number of significant unidentified events nor eliminate the need for manned stations or on-site inspections.

22. The United Kingdom formally proposed that the whole question be examined by experts, without any pre conditions. The Soviet Union rejected the proposal, insisting that the United Kingdom and the United States first accept the idea of "black boxes" in principle before there was any discussion of details.

23. These were the respective positions of the Soviet Union, the United Kingdom and the United States when the ENDC went into recess on 20 December 1962. The three-Power Sub-Committee on nuclear testing did not meet thereafter. When the ENDC reconvened on 12 February 1963, it again concentrated on a comprehensive treaty banning tests in all environments. The discussion revealed that there was agreement mainly on the following principles: (a) utilization of nationally manned and nationally controlled seismic stations for detection and identification of seismic events; (b) installation of automatic (unmanned) seismic stations in the territories of nuclear Powers and adjacent countries as a check on the proper functioning of the nationally manned stations, on the understanding that delivery and removal of equipment and records of these stations would be carried out with the participation of foreign personnel under arrangements safeguarding the security of the States concerned; and (c) an annual quota of on-site inspections as a means to determine the nature of suspicious events.

24. There was disagreement on the number of annual inspections and on the number of automatic seismic stations. The Soviet Union proposed two to three on-site inspections a year; the United States proposed eight to ten, a figure which was later reduced to seven on condition that the verification system eventually elaborated would be effective. The Soviet Union proposed the establishment of three automatic seismic stations; the United States proposed seven such stations.

25. On 10 June 1963, the non-aligned members of the Committee - Ethiopia, Nigeria and the United Arab Republic, submitted a joint memorandum suggesting that for the time being "three, four or so truly effective inspections a year - or an adequately proportioned figure spread over more years", might be needed to dispel mutual suspicions and to facilitate reaching a settlement. 13/ Such a compromise quota of inspection would be contingent upon agreement on adequate and effective modalities of inspection. They also expressed the conviction that direct talks between the three nuclear-weapon Powers on a high level, might prove of great value in reaching a solution of the problem.

13/ Official Records of the Disarmament Commission, Supplement for January-December 1963, document ENDC/94.

26. On 10 June, it was announced that the Soviet Union, the United States and the United Kingdom had agreed to hold talks in Moscow in mid-July on the cessation of nuclear tests. On 2 July, the Soviet Union stated that the United States and the United Kingdom insistence on on-site inspections made an underground ban impossible; the Soviet Union was therefore prepared to sign a limited treaty banning tests in the three non-controversial environments - in the atmosphere, in outer space and under water. It also abandoned its previous demands that a partial test ban must be accompanied by a moratorium on underground testing. 14/

27. The negotiations which began on 15 July ended on 25 July when the text of the Treaty was initialled. It was opened for signature on 5 August. 15/ The scope of the Treaty is defined as follows:

Article I

"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; or under water, including territorial waters or high seas; or

(b) in any other environment if such explosion causes radioactive debris to be present outside the territorial limits of the State under whose jurisdiction or control such explosion is conducted. It is understood in this connexion that the provisions of this sub-paragraph are without prejudice to the conclusion of a treaty resulting in the permanent banning of all nuclear test explosions, including all such explosions underground, the conclusion of which, as the Parties have stated in the Preamble to this Treaty, they seek to achieve.

"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."

Further measures

28. The operative part of the Treaty does not contain any provision concerning measures for further expanding of the Treaty's scope. However, such a goal was proclaimed in the Preamble of the Treaty which states the determination of the Parties to seek "to achieve the discontinuance of all test explosions of nuclear weapons for all time", and to this end to continue negotiations. The same determination was recalled in the Preamble of the Treaty on the Non-Proliferation of Nuclear Weapons in 1968.

14/ Ibid., ENDC/112.

15/ Treaty Series, Treaties and International Agreements registered or filed and recorded with the Secretariat of the United Nations, Vol. 480, p. 43, Legal Registration Number 6964.

29. These efforts were, in fact, continued immediately following the conclusion of the partial agreement in 1963. Differing views on verification, which had prevented inclusion of underground tests in that treaty, have continued for years to block any further agreement. It was not before 1974 that some progress was achieved. On 3 July 1974 the United States and the Soviet Union signed a Treaty on the Limitation of Underground Nuclear Weapon Tests, with a Protocol to the Treaty. 16/ Under the terms of the Treaty, each Party agreed not to carry out any tests of weapons having a yield in excess of 150 kilotons after 31 March 1976, to keep its underground tests to a minimum, and to work towards ending all underground nuclear-weapon tests. Verification will be carried out by national means of detection, but provisions are included in the Protocol to ensure that nuclear-weapon tests under the threshold will be carried out in specific areas under the jurisdiction or control of the Parties. Article III of the Treaty stated that its provisions would not apply to nuclear explosions for peaceful purposes; and that these "shall be governed by an agreement which is to be negotiated and concluded by the Parties at the earliest possible time."

30. On 28 May 1976, the Soviet Union and the United States concluded a Treaty on Underground Nuclear Explosions for Peaceful Purposes, together with a Protocol and an Agreed Statement. 17/ The Treaty applies to all underground nuclear explosion for peaceful purposes conducted by the Parties after 31 March 1976. Individual explosions with yields greater than 150 kilotons are prohibited, as well as group explosions exceeding 1,500 kilotons. In accordance with Article IV, for the purpose of ensuring compliance with the Treaty each Party shall use national technical means of verification and provide information and access to sites of explosions.

31. The question of underground nuclear-weapon tests has been actively considered in the Conference of the Committee on Disarmament (CCD), where a number of suggestions and proposals have been submitted both by nuclear and non-nuclear-weapon States. During the 1977 session of the Committee, there have been a number of significant developments. On 22 February the Soviet Union introduced a draft treaty on the complete and general prohibition of nuclear-weapon tests. 18/ Under the Soviet draft, first submitted to the General Assembly in 1975 and later revised, 19/ nuclear-weapon tests would be prohibited in all environments. Provisions are included in Article II to ensure compliance with the treaty through the use of national means of control supplemented by cooperation in an international exchange of seismic data, as well as by on-site inspection in case of doubts regarding the nature of a seismic event. Article III excludes from the prohibition any underground nuclear explosions conducted by nuclear-weapon States on their jurisdictions or in accordance with Article V of the Treaty on the Non-Proliferation of Nuclear Weapons.

16/ Document A/9698, Annexes I and II.

17/ Document A/31/125.

18/ Document CCD/523.

19/ Document A/C.1/31/7.

32. On 5 July, Sweden tabled a draft treaty banning nuclear-weapon test explosions in all environments. 20/ By Article I, the prohibition would apply to any nuclear-weapon test explosion, or any explosion of other nuclear devices. Verification would be carried out both by an effective international exchange of seismological data and on-site inspection. In accordance with Article III, States Parties would engage the services of a consultative committee to ensure the full observance and implementation of the provisions of the Treaty. As regards peaceful nuclear explosions, they might be carried out only under international supervision and control. Transitional arrangements are also contemplated to ensure the cessation of nuclear-weapon tests.

33. In pursuance of the decision of the Conference of the Committee on Disarmament, (CCD) of 22 July 1976, the Ad Hoc Group of Scientific Experts to Consider International Co-operative Measures to Detect and Identify Seismic Events held during 1977 its second, third and fourth sessions in Geneva. The Group is expected to specify the characteristics of an international monitoring system and estimate the detection and identification capability of such a system; it should then provide factual results of its analysis for the benefit of Governments.

34. On 28 July, the representatives of the United Kingdom, the Soviet Union and the United States announced in the CCD the conclusion of the first round of tripartite consultations on a comprehensive test ban treaty, which took place in Geneva from 13 to 27 July. 21/ The United Kingdom expressed the hope that the next round would enable the three delegations to work towards an agreement which would command universal respect. The Soviet Union stressed that it would, for its part, exert all efforts in order to achieve the objective of a complete and general prohibition of nuclear-weapon tests. The United States said that it looked forward to the resumption of those negotiations and expressed the hope that this would prepare the way for fruitful negotiations in the CCD towards the goal of a truly effective comprehensive test ban treaty.

20/ Document CCD/526/Rev.1.

21/ Document CCD/PV.757.

III. 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 TREATY) */

Introduction

35. Early efforts to prevent the spread of the arms race to outer space were made in the Sub-Committee of the Disarmament Commission and the General Assembly in the late 1950s. On 29 August 1957, in the Sub-Committee of the Disarmament Commission, Canada, France, the United Kingdom and the United States submitted proposals for partial disarmament measures, including one by which a technical committee would be established to study the features of an inspection system designed to assure that the launching of objects through outer space would be exclusively for peaceful and scientific purposes. 1/ This proposal became one of the provisions of General Assembly resolution 1148 (XII), adopted on 14 November 1957.

36. The debate of the item "Question of the peaceful uses of outer space" in 1958 at the thirteenth session of the General Assembly ultimately led to the adoption of resolution 1348 (XIII), by which the General Assembly established an Ad Hoc Committee on the Peaceful Uses of Outer Space. The Committee reported to the Assembly at the fourteenth session. As a result of the debate the General Assembly, recognizing the common interest of mankind in furthering the peaceful use of outer space and the great importance of international co-operation in this field, adopted resolution 1472 (XIV) of 12 December 1959 by which a Committee on the Peaceful Uses of Outer Space was permanently established. It was, however, understood that the new Committee would, inter alia, "study practical and feasible means for giving effect to programmes in the peaceful uses of outer space which could appropriately be undertaken under United Nations auspices", while other organs at the United Nations would perform the task of facilitating progress on disarmament.

Question of the scope

37. The military aspects of the use of outer space were then taken up in the Ten-Nation Committee on Disarmament. Several proposals put forward by the Western Powers contained provisions for a ban on the placing of weapons of mass destruction in outer space. 2/ However, these provisions were integral parts of programmes on general and complete disarmament and, therefore, treated the issue of outer space in conjunction with other disarmament measures. This was also the case with the Soviet draft treaty on general and complete disarmament submitted to the General Assembly in September 1960, which linked the question of demilitarization of outer space with such issues as the abolition of foreign military bases. 3/ Thus, the relevant section of that proposal read:

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*/ The Treaty was open for signature on 27 January 1967 at London, Moscow and Washington. It entered into force on 10 October 1967.

1/ Official Records of the Disarmament Commission, Supplement for January to December 1957, document DC/112, annex 5 (DC/SC.1/66)

2/ The five Powers (Canada, France, Italy, the United Kingdom and the United States) plan of 16 March 1960 (document TNCD/3) and the United States programme on general and complete disarmament of 27 June 1960 (document DC/154).

3/ Document A/4505.

"4. From the very beginning of the first stage and until the final destruction of all means of delivering nuclear weapons, the placing into orbit or stationing in outer space of any special devices, the leaving of their territorial waters by warships and the flying beyond the limits of their national territory by military aircraft capable of carrying weapons of mass destruction, will be prohibited."

38. The question of the prevention of the spread of the arms race to outer space was raised again in 1962 in the course of the work of the newly established Eighteen-Nation Committee on Disarmament (ENDC). Both the Soviet and United States plans for general and complete disarmament submitted to the Committee dealt in appropriate sections with this issue. 4/ Although the proposals were generally welcomed, a number of States, in particular Canada, Italy and Mexico, argued that the question of demilitarization of outer space should be considered independently of general and complete disarmament and, to this effect, suggested that this issue should be given priority. No definite action was taken on these suggestions during 1962, but at the General Assembly's seventeenth session, that year, the United States declared its readiness to enter into such agreement.

39. In order to facilitate and, at the same time, give fresh impetus to the considerations of the issue as an independent disarmament measure, Mexico submitted to the ENDC on 21 June 1963 a working paper containing the outline of a draft treaty. 5/ The scope of the treaty, defined in article I, was much broader than previous proposals which were concerned only with nuclear weapons and other weapons of mass destruction. The Mexican draft provided not only for denuclearization but for a complete demilitarization of outer space. It read as follows:

"1. Outer space and the celestial bodies shall be utilized exclusively for peaceful purposes. Accordingly, every military measure, among others, such as the placing in orbit and the stationing in space of nuclear weapons or weapons of mass destruction or of vehicles capable of delivering such weapons, is prohibited. Tests of the said weapons of destruction, or of any other war-like device for military purposes, are likewise prohibited, as is the stationing or placing in orbit of bases for launching weapons of any type whatsoever.

"2. Nothing in this treaty shall prevent the employment of military personnel or equipment, provided that they are used exclusively for scientific research or for some other peaceful purpose."

40. In introducing the draft, Mexico reiterated its view that the "question of placing weapons of mass destruction, or of stationing special devices in space which can serve as vehicles for these weapons is ... a question sui generis". In its opinion, the ideas and objectives contained in the draft "answer the universal desire to keep outer space free of nuclear weapons". 6/

4/ Official Records of the Disarmament Commission, Supplement for January 1961 to December 1962, document DC/203 (ENDC/2 and ENDC/30).

5/ Official Records of the Disarmament Commission, Supplement for January-December 1963, document ENDC/98.

6/ Document ENDC/PV.148, pp. 39-42.

41. The matter was not immediately pursued any further. However, during the General Assembly's eighteenth session in 1963 both the Soviet Union and the United States announced their readiness to work towards reaching an agreement on the preservation of outer space for peaceful purposes. In view of this, at the initiative of Mexico, the General Assembly adopted on 17 October 1963 resolution 1887 (XVIII), welcoming the intention of the two nuclear-weapon Powers. It also contained a call upon all States to refrain from military activities in outer space, which was, however, restricted in scope to activities concerning nuclear weapons and other weapons of mass destruction. It read:

> "2. Solemnly 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 in any other manner;
>
> (b) to refrain from causing, encouraging or in any way participating in the conduct of the foregoing activities."

42. Thereafter, the matter was considered in the Committee on the Peaceful Uses of Outer Space and by the General Assembly. Nevertheless, the text of an agreement was worked out mainly in bilateral negotiations between the United States and the Soviet Union in 1965 and 1966. The draft was finalized in September 1966 and thereafter submitted to the General Assembly for its approval. Resolution 2222 (XXI), adopted by acclamation on 14 December 1966, commended the treaty. The principal disarmament provisions of the Treaty 7/ are contained in article IV. It provides for two different scopes depending on the area of the Treaty's application. Thus, the scope is narrower with regard to military activities in orbit around the Earth and in outer space. The prohibitions cover only nuclear weapons and other weapons of mass destruction and not other military activities. As far as the moon and other celestial bodies are concerned the scope is much wider -- it provides for their complete demilitarization. Article IV reads:

> "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."

7/ Treaty Series, Treaties and International Agreements registered or filed and recorded with the Secretariat of the United Nations, Vol.610, p.205, Legal Registration Number 8843.

43. A system of verification of obligations under article IV is envisaged in article XII of the Treaty. It is, however, limited only to verification of activities with regard to the moon and celestial bodies. It stipulates: "All stations, installations, equipment and space vehicles on the moon and other celestial bodies shall be open to representatives of other States Parties to the Treaty on a basis of reciprocity".

44. No specific provisions for expanding the Treaty's scope with regard to the military activities in orbit around the Earth and in outer space were envisaged in the Treaty.

IV. TREATY ON THE NON-PROLIFERATION OF NUCLEAR WEAPONS */

Introduction

45. The earliest efforts in the United Nations to a draft treaty which would ensure that the newly discovered atomic energy would be used exclusively for peaceful purposes had as one of its aims the prevention of the spread of nuclear weapons. The dissemination of knowledge of nuclear technology, as distinct from its use for military purposes, was accelerated in the 1950s when the United States and the Soviet Union undertook to render extensive technical assistance in the field of peaceful uses of atomic energy. In addition, the policies of the major Powers and their strategic concepts led to the building up of military alliances and other collective defence arrangements, including in some cases the stationing of armed forces with nuclear weapons on the territory of countries which themselves did not possess nuclear weapons. The Soviet Union proposed, in 1956, a zone of limitation and inspection of armaments in Central Europe and, in particular, a ban on the stationing of atomic military formations and the location of atomic and hydrogen weapons of any kind in that zone. 1/

46. The following year, the United States submitted a package of partial disarmament proposals 2/ whereby, from the date of the cessation of production of fissionable material for weapons purposes, each party would undertake not to transfer out of its control any nuclear weapons or to accept transfer to it of such weapons except where, under arrangements between the transferer and the transferee, their use would be restricted to the eventuality of an armed attack placing the parties in the situation of individual or collective self-defence.

47. There thus developed two different approaches to the problem of preventing the spread of nuclear weapons, namely, the creation of nuclear-free zones in which all nuclear weapons would be prohibited and, secondly, agreement on a treaty which would specifically ban the dissemination of nuclear weapons by the nuclear Powers and the acquisition of nuclear weapons by States not possessing them.

48. During the period from 1958 to 1965, when the first draft treaties to prevent the spread of nuclear weapons were submitted, 3/ the question of non-proliferation was intensively considered in various bodies dealing with disarmament problems. At the initiative of Malta in 1958, the issue was also taken up in the General Assembly which, by a number of resolutions adopted in the subsequent years, contributed towards laying down the basis of an agreement on the non-proliferation

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*/ The Treaty was open for signature on 1 July 1968 at Moscow, London and Washington. It entered into force on 5 March 1970.

1/ Official Records of the Disarmament Commission, Supplement for January-December 1956, document DC/83, annex 5 (DC/SC.1/41).

2/ Ibid., Supplement for January - December 1957, document DC/113, annex 5 (DC/SC.1/66).

3/ The draft treaties on general and complete disarmament introduced by the Soviet Union and the United States contained provisions, among the measures of the first stage, to prevent the dissemination or acquisition of nuclear weapons by non-nuclear-weapon States.

of nuclear weapons. The discussions that took place during this period revealed, however, substantive differences in approach to this issue not only between the nuclear-weapon States, but also between these States and the non-nuclear-weapon States. Thus, while the Soviet Union placed a special emphasis on the provisions banning both the transfer of, and control over, nuclear weapons, and the stationing of these weapons on the territory of non-nuclear States, the United Kingdom and the United States were concerned mainly with the transfer of and control over nuclear weapons, since the other question, i.e. the stationing of nuclear weapons, tended, in their opinion, to prejudge their strategic military arrangements. On the other hand, the non-aligned States suggested that, as a first step, the nuclear-weapon States should agree to freeze the levels of nuclear armaments. They also pointed out that other steps, such as a ban on nuclear weapon tests, would also help to prevent the proliferation of nuclear weapons.

49. Towards the mid-1960s, the consideration of the issue became further complicated with the question of access to nuclear weapons through military alliances, in view of the proposed plans under discussion at the time by the Western allies for establishing a NATO multilateral nuclear force (MLF). The United Kingdom and the United States maintained that the projected establishment of the MLF was not in violation of the principe of non-proliferation as it did not envisage a transfer of, and control over nuclear weapons. The Soviet Union, in contrast, claimed that such an arrangement, in fact, would not quite preclude direct or indirect access to nuclear weapons by non-nuclear-weapon Powers, and that therefore it was contrary to the idea of non-proliferation. The draft treaties submitted by the United States and the Soviet Union on 17 August and 24 September 1965 respectively, reflected their different positions on this issue.

50. The United States draft 4/ defined the scope of the treaty in articles I and II as follows:

Article I

"1. Each of the nuclear States Party to this Treaty undertakes not to transfer any nuclear weapons into the national control of any non-nuclear States, either directly, or indirectly through a military alliance, and each undertakes not to take any other action which would cause an increase in the total number of States and other organizations having independent power to use nuclear weapons.

"2. Each of the nuclear States Party to this Treaty undertakes not to assist any non-nuclear State in the manufacture of nuclear weapons.

Article II

"1. Each of the non-nuclear States Party to this Treaty undertakes not to manufacture nuclear weapons; each undertakes not to seek or to receive the transfer of such weapons into its national control, either directly, or indirectly through a military alliance; and each undertakes not to take any other action which would cause an increase in the total number of States and other organizations having independent power to use nuclear weapons.

4/ Official Records of the Disarmament Commission, Supplement for January-December 1965, document DC/227 (ENDC/152).

"2. Each of the non-nuclear States Party to this Treaty undertakes not to seek or to receive assistance in the manufacture of nuclear weapons, or itself to grant such assistance."

51. While explaining the draft treaty the United States emphasized that since it prohibited direct and indirect forms of transfer into national control of non-nuclear-weapon States, no additional nuclear-weapon Power could emerge, whether national or international. But, the United States added: "The treaty would not, however, preclude the establishment of nuclear arrangements -- such as a multilateral force within NATO -- so long as such arrangements would not constitute an additional organization or entity having the power to use nuclear weapons independently of the participating nations presently possessing nuclear weapons. A new organization having such independent power could come into existence only if a present nuclear nation should voluntarily turn over its entire stockpile of nuclear weapons to a collective entity and should also voluntarily renounce its right of veto over the collective force. Even in the event of such a possibility, however, no non-nuclear nation could acquire independent power to use nuclear weapons under the draft treaty. This would be barred by the provisions which preclude any transfer into the national control of a non-nuclear country." 5/

52. The Soviet Union and its allies restated their strong objections to the principle upon which the United States draft was based. They said that the draft treaty failed to close all avenues of possible proliferation and contained loopholes which would enable the use of nuclear weapons by the NATO countries which then could gain access to nuclear weapons indirectly. Poland maintained that a non-proliferation treaty must introduce an absolute and comprehensive ban on all forms of nuclear proliferation and, more specifically, should freeze the present status of all States with respect to physical access to nuclear weapons, their ownership, disposition, operation and control, as well as training in their use and nuclear planning.

53. The Soviet draft 6/ dealt with the scope of the treaty in articles I - III. They read as follows:

Article I

"1. Parties to the Treaty possessing nuclear weapons undertake not to transfer such weapons in any form -- directly or indirectly, through third States or groups of States -- to the ownership or control of States or groups of States not possessing nuclear weapons and not to accord to such States or groups of States the right to participate in the ownership, control or use of nuclear weapons.

"The said Parties to the Treaty shall not transfer nuclear weapons, or control over them or over their emplacement and use, to units of the armed forces or military personnel of States not possessing nuclear weapons, even if such units or personnel are under the command of a military alliance.

5/ Document ENDC/PV.228, p. 38.

6/ Official Records of the General Assembly, Twentieth Session, Annexes, agenda item 106, document A/5976 (ENDC/164).

"2. Parties to the Treaty possessing nuclear weapons undertake not to provide assistance -- directly or indirectly, through third States or groups of States -- to States not at present possessing nuclear weapons in the manufacture, in preparations for the manufacture or in the testing of such weapons and not to transmit to them any kind of manufacturing, research or other information or documentation which can be employed for purposes of the manufacture or use of nuclear weapons.

Article II

"1. Parties to the Treaty not possessing nuclear weapons undertake not to create, manufacture or prepare for the manufacture of nuclear weapons either independently or together with other States, in their own territory or in the territory of other States. They also undertake to refrain from obtaining nuclear weapons in any form -- directly or indirectly, through third States or groups of States -- for purposes of ownership, control or use and shall not participate in the ownership, control or use of such weapons or in testing them.

"The said Parties to the Treaty shall not seek to acquire control over nuclear weapons or over their emplacement and use for units of their armed forces or personnel thereof, even if such units or personnel are under the command of a military alliance.

"2. Parties to the Treaty not possessing nuclear weapons undertake not to obtain or seek to obtain, from States possessing nuclear weapons, assistance in the manufacture of such weapons or relevant manufacturing, research or other information or documentation which can be employed for purposes of the manufacture or use of nuclear weapons.

Article III

"The Parties to this Treaty shall refrain from offering any support, encouragement or inducement to States seeking to own, manufacture or exercise control over nuclear weapons".

54. The United States objected to the draft on the grounds that it was intended to bar the existing practice for the deployment of United States nuclear weapons, under its own control, on the territory of its allies and preclude consultations on nuclear strategy between NATO allies.

55. The positions of other States to the problem of the non-proliferation also reflected differences in emphasis. The United Kingdom and Canada supported the United States draft as did Italy. However, Italy at the same time stressed that the treaty should not remain an isolated disarmament step but should be accompanied by a freeze on production of nuclear weapons and by actual reduction of nuclear stockpiles. In addition, on 14 September 1965, Italy submitted a draft unilateral declaration of non-acquisition of nuclear weapons,7/ whereby States would unilaterally undertake for an agreed period of time: (1) not to manufacture or acquire

7/ Official Records of the Disarmament Commission, Supplement for January-December 1965, document DC/227, annex 1 (ENDC/157).

national control over nuclear weapons; (2) not to seek or receive assistance from other States in manufacturing these weapons; and (3) to accept application of the IAEA or equivalent international safeguards on nuclear activities. These obligations could be prolonged, depending on progress on international disarmament agreements, such as a non-proliferation treaty, halting of the arms race and reduction of nuclear arsenals. Parties would reserve all freedom of action if any State acquired national control of nuclear weapons.

56. On the other hand, India proposed the conclusion of a two-stage non-proliferation agreement. The first stage (or a partial non-proliferation agreement) would apply only to nuclear-weapon Powers who would undertake, under a formula acceptable to the two Power blocs: (1) not to pass on weapons or technology to other States; (2) to cease all production of nuclear weapons and delivery vehicles, and to agree on the beginning of a programme of reduction of their stocks; and (3) to agree also to incorporate other measures. After this treaty had come into force and steps had been taken by the nuclear Powers to stop all production and to embark on reduction of stocks, the second stage of the treaty (or the comprehensive treaty) would begin, which would provide for an undertaking by non-nuclear Powers not to acquire or manufacture nuclear weapons. The transition between the first stage and the second stage of the treaty, or between the partial treaty and the comprehensive non-proliferation treaty, might be regulated by the Italian proposal. Later, India declared that it would not press for beginning the reduction of nuclear stocks before a non-proliferation treaty was signed. However, the renunciation by non-nuclear Powers of the production, acquisition and control of and access to nuclear weapons should be simultaneous with the renunciation by nuclear Powers of further production of these weapons and with agreement on reduction of existing nuclear stockpiles.

57. Sweden suggested that an agreement on a comprehensive test ban would be the most practical measure to prevent an increase in the number of nuclear Powers, since it was improbable that a nuclear Power could emerge without an extensive programme of nuclear testing. Sweden restated its preference for a solution of the non-proliferation problem within a package of measures, including a comprehensive test ban and a cut-off of production of weapon-grade fissile materials. It supported the Italian proposal as a temporary solution and suggested that, in order to make acceptance by some non-nuclear States easier, the time-limit for a moratorium envisaged by the Italian formula should be relatively short.

58. On 15 September 1965 the eight non-aligned members of the ENDC - Brazil, Burma, Ethiopia, India, Mexico, Nigeria, Sweden and the UAR - submitted a joint memorandum on non-proliferation of nuclear weapons,[8/] which expressed their belief that a treaty on non-proliferation was not an end in itself, but only a means to an end, namely, the achievement of general and complete disarmament and, more particularly, nuclear disarmament. They were "convinced that measures to prohibit the spread of nuclear weapons should, therefore, be coupled with or followed by tangible steps to halt the nuclear arms race and to limit, reduce and eliminate the stocks of nuclear weapons and the means of their delivery".

8/ Ibid., document ENDC/158.

59. In order to remove the main obstacles between the two sides on the question of control of nuclear weapons within the framework of military alliances, on 21 March 1966, the United States submitted amendments to its draft treaty of 17 August 1965 by which, inter alia, (1) it defined "control" in the context of non-proliferation as the "right or ability to fire nuclear weapons without the concurrent decision of an existing nuclear-weapon State"; (2) it made clear that each of the nuclear-weapon States party to the treaty would undertake not to transfer nuclear weapons, not only into the national control of any non-nuclear-weapon State, but also into the control of any association of non-nuclear-weapon States; (3) it stipulated that the obligation not to assist any non-nuclear-weapon State in the manufacture of nuclear weapons extended to "preparation for such manufacture" as well as "the testing of nuclear weapons", and "encouragement or inducement to manufacture or otherwise acquire its own nuclear weapons". None of the actions prohibited by the treaty could be taken either directly, or indirectly through third States or associations of States, or through units of the armed forces or military personnel of any State, even if such units or personnel were under the command of a military alliance. It stressed, however, that it favoured the right of military allies to consult each other on the nuclear defence of the alliance and implied that the issue was not negotiable. The relevant articles of the draft 9/ were formulated as follows:

Article I

"Each of the nuclear-weapon States party to this treaty undertakes:

"1. Not to transfer nuclear weapons into the national control of any non-nuclear-weapon State, or into the control of any association of non-nuclear-weapon States.

"2. Not to provide to any non-nuclear-weapon State or association of such States

(a) assistance in the manufacture of nuclear weapons, in preparation for such manufacture, or in the testing of nuclear weapons; or

(b) encouragement or inducement to manufacture or otherwise acquire its own nuclear weapons.

"3. Not to take any other action which would cause an increase in the total number of States and associations of States having control of nuclear weapons.

"4. Not to take any of the actions prohibited in the preceding paragraphs of this Article directly, or indirectly, through third States or associations of States, or through units of the armed forces or military personnel of any State, even if such units of personnel are under the command of a military alliance".

9/ Ibid., document ENDC/152.

Article II

"Each of the non-nuclear-weapon States party to this treaty undertakes:

"1. Not to manufacture nuclear weapons, and not to seek or to receive the transfer of nuclear weapons into its national control or into the control of any association of non-nuclear-weapon States of which it is a member.

"2. Not to seek or receive, and not to provide, whether alone or in any association of non-nuclear-weapon States:

(a) assistance in the manufacture of nuclear weapons, in preparations for such manufacture, or in the testing of nuclear weapons; or

(b) encouragement or inducement to manufacture or otherwise acquire its own nuclear weapons.

"3. Not to take any other action which would cause an increase in the total number of States and associations of States having control of nuclear weapons.

"4. Not to take any of the actions prohibited in the preceding paragraphs of this Article directly, or indirectly through third States or associations of States or through units of its armed forces or its military personnel, even if such units or personnel are under the command of a military alliance".

In response, the USSR and its allies restated their position, indicating that they would not sign a non-proliferation treaty which did not rule out all forms of participation by the NATO non-nuclear powers in the control of a multilateral nuclear deterrent.

60. As far as the non-aligned States were concerned, they reiterated in the ENDC their primary emphasis on the need for an acceptable balance of mutual responsibilities and obligations of nuclear and non-nuclear-weapon States. On 19 August 1966, they submitted a joint memorandum 10/ which stated, inter alia, that the question of nuclear defence arrangements within military alliances was the concern mainly of the major nuclear Powers and their allies, whereas for the non-nuclear, non-aligned countries, the question of the balance of mutual responsibilities and obligations between the nuclear and the non-nuclear Powers was of particular importance. A non-proliferation treaty, the memorandum said, should impose an obligation of the non-nuclear Powers to refrain from the acquisition of nuclear weapons; and, in order to assure the desired balance of mutual obligations and responsibilities the nuclear Powers should undertake a number of tangible steps to halt the arms race and to limit, reduce or eliminate stocks of

10/ Official Records of the Disarmament Commission, Supplement for 1966, document DC/228, annex 1, ENDC/178.

nuclear weapons and their means of delivery. A comprehensive nuclear test ban, a complete cessation of the production of fissionable material for weapon purposes, a freeze on, and an gradual reduction of, nuclear weapon stocks and means of delivery, a ban on the use of nuclear weapons, and security assurances to the non-nuclear States were among the measures proposed in the memorandum, for possible incorporation in a treaty or as a declaration of intent.

61. The USSR, the United Kingdom and the United States held that it would be harmful to the cause of non-proliferation if the non-aligned members of the Committee were to insist on making the non-proliferation treaty dependent on the implementation of other disarmament measures. The agreement of the three nuclear Powers on this issue was soon followed by a significant reconciliation of their positions with regard to the scope of the treaty. Thus, on 24 August 1967, 11/ separate but identical drafts of a non-proliferation treaty were submitted to the ENDC by the United States and the Soviet Union. Articles I and II were formulated as follows:

Article I

"Each nuclear-weapon State Party to this Treaty undertakes not to transfer to any recipient whatsoever nuclear weapons or other nuclear explosive devices or control over such weapons or explosive devices directly, or indirectly; and 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".

Article II

"Each non-nuclear-weapon State Party to this Treaty undertakes not to receive the transfer from any transferor whatsoever of nuclear weapons or other nuclear explosive devices or of control over such weapons or explosive devices directly, or indirectly; not to manufacture or otherwise acquire nuclear weapons or other nuclear explosive devices; and not to seek or receive any assistance in the manufacture of nuclear weapons or other nuclear explosive devices".

62. In presenting the draft, both the United States and the Soviet Union, stated that it was based on a compromise approach and that it took into account a number of views put forward by the non-aligned States. Although the draft was welcomed in general, it invited additional comments and proposals, particularly from the non-aligned States. Some of them were directed towards a widening of the scope concerning both the commitments of the non-nuclear and nuclear-weapon Powers. The United Arab Republic, for instance, proposed that the language of articles I and II be strengthened

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11/ Ibid., Supplement for 1967 and 1968, document DC/230 and Add.1, ENDC/192 and ENDC/193.

to preclude transfer of nuclear weapons in any form whatsoever, including gifts and partial ownership.12/ Romania, however, suggested that the nuclear Powers commit themselves, in a separate article, to adopt specific measures with a view to halting the manufacture of nuclear weapons, the reduction of stocks and the final destruction of nuclear weapons and delivery vehicles. Similarly, India continued to express the over-all objection that the treaty's scope must not only prevent "horizontal proliferation", i.e. the acquisition of nuclear weapons by non-nuclear-weapon States, but also "vertical proliferation", i.e. the further expansion of existing stocks and the development of new nuclear weapons. Brazil, Burma and Ethiopia also made references to the need of including in the treaty a firm undertaking of the nuclear Powers concerning their own nuclear disarmament.

63. On 18 January 1968 the United States and the Soviet Union submitted to the ENDC new identical revised drafts13/ which included some important changes in the previous texts, none of them in the basic provisions on scope. However, in order to accommodate the views of non-nuclear-weapon States, the sponsors inserted Article V on the availability of the potential benefits of peaceful nuclear explosions, Article VI containing an undertaking to pursue negotiations with a view to the cessation of the nuclear arms race, and Article VII on the right of States to conclude agreements on nuclear-weapon-free zones.

64. A number of suggestions were made by non-nuclear-weapon States in the ENDC for the purpose of introducing further improvements to the draft, but only some of them referred to the question of the scope. Brazil tabled amendments to Articles I and II which would permit non-nuclear-weapon States to possess nuclear explosive devices for peaceful purposes 14/ and the United Arab Republic re-stated its proposal for the strengthening of the prohibitions contemplated in those Articles.

65. On 11 March 1968 the sponsors submitted to the Committee a joint draft treaty 15/ which incorporated some of the suggestions made by delegations. No changes were made in Articles I, II and VI. The new text was submitted to the General Assembly together with the proposals and working papers introduced in the ENDC.16/

66. At the resumed twenty-second session of the General Assembly, the joint draft treaty was again revised, mainly the preamble and Articles IV and V, in order to reflect the comments made by several delegations during the debate. Thus the relevant articles concerning the scope of the Treaty,17/ which was commended by General Assembly resolution 2372 (XXII) of 12 June 1968, read as follows:

12/ Ibid., ENDC/197.

13/ Ibid., ENDC/192/Rev.1 and ENDC/193/Rev.1.

14/ Ibid., ENDC/201/Rev.2.

15/ Ibid., annex II, ENDC/222.

16/ Document A/7072 (DC/230).

17/ Treaty Series, Treaties and International Agreements registered or filed and recorded with the Secretariat of the United Nations, vol. 729, p.161, Legal Registration Number 10485.

Article I

"Each nuclear-weapon State Party to the Treaty undertakes not to transfer to any recipient whatsoever nuclear weapons or other nuclear explosive devices or control over such weapons or explosive devices directly, or indirectly; and 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."

Article II

"Each non-nuclear-weapon State Party to the Treaty undertakes not to receive the transfer from any transferor whatsoever of nuclear weapons or other nuclear explosive devices or of control over such weapons or explosive devices directly, or indirectly; not to manufacture or otherwise acquire nuclear weapons or other nuclear explosive devices; and not to seek or receive any assistance in the manufacture of nuclear weapons or other nuclear explosive devices."

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Article VI

"Each of the Parties to the Treaty undertakes to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament, and on a treaty on general and complete disarmament under strict and effective international control."

Further measures

67. On 1 July 1968, the same day that the Treaty on the Non-Proliferation of Nuclear Weapons had been opened for signature, the Soviet Union and the United States announced their intention to enter into bilateral discussions on the "limitation and reduction of both offensive and defensive strategic nuclear-weapon delivery systems and systems of defense against ballistic missiles". On 16 April 1970 the strategic arms limitation talks opened in Vienna. In addition, both powers have conducted negotiations on other measures.

68. Since the Treaty entered into force on 5 March 1970, the following agreements have been concluded by the Soviet Union and the United States, either in the context of SALT or other bilateral consultations:

1. Agreement on Measures to Improve the USA-USSR Direct Communications Link, signed at Washington on 30 September 1971 18/ and amended by an exchange of letters on 29 April 1975.

2. Agreement on Measures to Reduce the Risk of Outbreak of Nuclear War, signed at Washington on 30 September 1971. 19/

18/ Treaty Series, Treaties and International Agreements registered or filed and recorded with the Secretariat of the United Nations, Vol. 806, p.402, Legal Registration Number 6839.

19/ Ibid, vol. 807, p.57, Legal Registration Number 11509.

3. Agreement on the Prevention of Incidents on and over the High Seas, signed at Moscow on 25 May 1972. 20/

4. Interim Agreement on Certain Measures with respect to the Limitation of Strategic Offensive Arms, with a Protocol, and Treaty on the Limitation of Anti-Ballistic Missile Systems, signed at Moscow on 26 May 1972. 21/

5. Protocol to the Agreement on the Prevention of Incidents on and over the High Seas, signed at Washington on 22 May 1973. 22/

6. Agreements on Basic Principles of Negotiations on the Further Limitation of Strategic Offensive Arms and on the Prevention of Nuclear War, signed at Washington on 21 and 22 June 1973. 23/

7. Protocol to the Treaty on the Limitation of Anti-Ballistic Missile Systems and Treaty on the Limitation of Underground Nuclear Weapon Tests, with a Protocol, signed at Moscow on 3 July 1974. 24/

8. Joint Statement giving guidance for further negotiations on the limitation of strategic offensive arms, issued at Vladivostok on 24 November 1974. 25/

9. Treaty on Underground Nuclear Explosions for Peaceful Purposes, with a Protocol and an Agreed Statement, signed at Moscow and Washington on 28 May 1976. 26/

69. The General Assembly has adopted a number of resolutions on SALT. In 1968 by resolution 2456 D (XXIII), the General Assembly urged the two countries to enter at an early date into bilateral discussions on the limitation of offensive strategic nuclear-weapon delivery systems and systems of defence against ballistic missiles.

20/ Statement of Treaties and International Agreements, ST/LEG./SER.A/310, p.13, Legal Registration Number 12214.

21/ Official Records of the General Assembly, Twenty-Seventh Session, Annexes, agenda item 30 (A/C.1/1026).

22/ Statement of Treaties and International Agreements, ST/LEG./SER.A/325, p.3 Legal Registration Number 12214.

23/ Official Records of the General Assembly, Twenty-Eighth Session, Annexes, agenda item 33 (A/9293).

24/ Ibid., Twenty-ninth Session, Annexes, agenda item 35 (A/9698).

25/ Ibid., Thirtieth Session, Annexes, agenda item 41 (A/C.1/1069).

26/ Document A/31/125.

70. The following year the General Assembly adopted resolution 2602 (XXIV). After noting with satisfaction that, on 17 November 1969, the Governments of the USSR and the United States had initiated bilateral negotiations on the limitation of offensive and defensive strategic nuclear-weapon systems, the Assembly appealed to the two Governments to agree, as un urgent preliminary measure, on a moratorium on further testing and deployment of new offensive and defensive strategic nuclear-weapon systems.

71. In 1970, the General Assembly adopted resolution 2661 A (XXV) by which, after noting with satisfaction the continuation of the SALT negotiations and expressing the belief that the chances for rapid success in these bilateral talks would increase if the nuclear-weapon Powers halted the development of new weapons, the Assembly urged the nuclear Powers to end the nuclear arms race and to cease all testing and development of nuclear weapon systems.

72. The question was again considered by the General Assembly in 1972, when it adopted resolution 2932 B (XXVII) which, noting with satisfaction the results of SALT I, appealed to the USSR and the United States to expedite further agreements including important qualitative limitations and substantial reductions of strategic weapon systems.

73. By resolution 3184 A (XXVIII), the General Assembly appealed in 1973 to the USSR and the United States to bear in mind the necessity and urgency of reaching agreement on important qualitative limitations and substantial reductions of strategic nuclear-weapon systems.

74. In 1974, by resolution 3261 C (XXIX), the General Assembly shared the concern raised by the USSR and the United States over the gravity of the situation created by existing nuclear arsenals and the continued nuclear arms race; urged these two Powers to broaden the scope and accelerate the pace of their SALT negotiations and stressed once again the necessity and urgency of reaching agreement on important qualitative limitations and substantial reductions of their nuclear-weapon systems.

75. At its thirtieth session in 1975, the General Assembly adopted resolution 3484 C (XXX) by which it regretted the lack of positive results at the SALT negotiations during the last two years, expressed its concern over the high numerical ceilings and the absence of qualitative limitations in the Vladivostok Agreement and urged the two Powers concerned to accelerate the talks and reach agreement on important qualitative limitations and substantial reductions in their nuclear arms.

76. At its thirty-first session, in 1976, by resolution 31/189 A, the General Assembly regretted the absence of positive results during the last three years of the SALT negotiations, expressed its concern over the very high numerical ceilings and the absence of qualitative limitations of nuclear arms , and urged the Soviet Union and the United States to accelerate the talks and reach agreement on important qualitative limitations and substantial reductions of their nuclear weapons.

77. At each of its regular sessions since 1972, when it approved resolution 2932 B (XXVII), the General Assembly has adopted resolutions requesting the Soviet Union and the United States to keep it informed of the progress of their negotiations. While the Soviet Union and the United States have made frequent references to their talks and to the results achieved so far, they have held the view that the negotiations

were not within the purview of the General Assembly and should therefore proceed along the lines set by the States concerned.

78. In accordance with Article VIII.3 of the Treaty on the Non-Proliferation of Nuclear Weapons, a Review Conference of the Parties to the Treaty was held in Geneva from 5 to 30 May 1975, to review its operation with a view to assuring that the purposes of its Preamble and provisions were being realized. As regards Articles I and II of the Treaty, the Final Declaration27/ confirmed that their provisions had been faithfully observed by all Parties. In reviewing Article VI, the Conference welcomed the various agreements on arms limitation and disarmament concluded over the last few years. At the same time, it expressed its serious concern that the arms race, in particular the nuclear arms race, was continuing unabated, and urged constant and resolute efforts by the Parties to the Treaty, in particular by the nuclear-weapon States, to achieve an early and effective implementation of Article VI. Interpretative statements were made by various delegations with respect to the Final Declaration. Some of them, made by the Group of 77, contained proposals concerning the implementation of Article VI of the Treaty.28/

27/ NPT/CONF./35/1.

28/ Ibid.

V. 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 (SEA-BED TREATY) */

Introduction

77. Growing interest in the use of the resources of the sea-bed and the ocean floor and the subsoil thereof beyond the limits of national jurisdiction developed in the 1960s as it became clear that advances in science and technology would permit man to benefit from the potential riches of the area. At the same time, it was recognized that an international régime would have to be established to forestall potential rivalries and to ensure that exploration and exploitation of the sea-bed and the ocean floor would be carried out for peaceful purposes and for the benefit of all mankind.

78. At the initiative of Malta, the whole question was taken up in 1967 by the twenty-second session of the General Assembly which, by its resolution 2340 (XXII), established an Ad Hoc Committee with the main task of exploring practical means of promoting international co-operation in the exploration, conservation and use of the sea-bed, the ocean floor and the subsoil thereof beyond the limits of national jurisdiction. The debate revealed widespread support for the principle of reserving this area exclusively for peaceful purposes and many delegations referred to the Antarctic Treaty and the Outer Space Treaty as precedents in this regard. At the same time, it was felt that the effort to ward off the danger of an arms race in the sea-bed should be pursued in the context of disarmament negotiations, since the issues at stake concerned matters relating to national and international security.

79. The question of an international agreement limiting the military use of the sea-bed and the ocean floor was first formally raised as a disarmament measure by the Soviet Union in its Memorandum on some urgent measures for stopping the arms race and for disarmament of 1 July 1968, 1/ submitted to the Eighteen-Nation Committee on Disarmament (ENDC). In the memorandum the Soviet Union stated that advances of technology in this field made it possible to consider the question of establishing a régime such as would ensure "the utilization of the sea-bed beyond the limits of the present territorial waters solely for peaceful purposes" and, in particular, prohibit the establishment of fixed military installations in that area, and proposed that the ENDC start negotiations towards that end. The President of the United States, in his message of 16 July 1968 to the ENDC, 2/ urged the Committee to begin negotiations on an agreement "which would prohibit the use of the new environment for the emplacement of weapons of mass destruction". The Committee welcomed these suggestions and agreed that the subject could be considered under the heading "other collateral measures", one of the four principal items of the provisional agenda.

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*/ The Treaty was open for signature on 11 February 1971 at London, Moscow and Washington. It entered into force on 18 May 1972.

1/ Official Records of the Disarmament Commission, Supplement for 1967 and 1968, document DC/231, annex I, ENDC/227.

2/ Ibid., ENDC/228.

80. The decision of the Committee met with widespread support at the twenty-third session of the General Assembly in 1968. At the same time, the discussion of the problem revealed the existence of substantial differences of opinion as to the best method of accomplishing this goal. A number of States, including the Soviet Union, supported a complete demilitarization of the area, while the United States and a number of other member States favoured consideration of an agreement prohibiting only the emplacement of weapons of mass destruction.

81. The General Assembly did not take a position on either approach. In its resolution 2454 B (XXIII) on general and complete disarmament it only called for urgent measures to negotiate collateral measures of disarmament, which by implication included the question of the sea-bed and the ocean floor. 3/

Question of the scope

82. During the 1969 spring session of the ENDC both the Soviet Union and the United States submitted specific proposals on the military uses of the sea-bed and the ocean floor, which fully reflected the positions which these two Powers had expressed in the General Assembly.

83. The Soviet draft treaty was submitted on 18 March 1969. 4/ In presenting the draft the Soviet Union emphasized that it was guided by General Assembly resolution 2340 (XXII) which, having noted that developing technology was making the sea-bed and the ocean floor and the subsoil thereof accessible and exploitable for military purposes, called upon all States to use the sea-bed and the ocean floor exclusively for peaceful purposes. In order to meet this request, the Soviet Union stated, the draft provided for a complete demilitarization of the environment beyond a coastal zone of 12 miles. In the Soviet view this was a ncesssary prerequisite for the successful development of international co-operation in opening up that environment for peaceful purposes. 5/ Article I of the draft read as follows:

> "The use for military purposes of the sea-bed and the ocean floor and the subsoil thereof beyond the twelve-mile maritime zone of coastal States is prohibited.
>
> "It is prohibited to place on the sea-bed and the ocean floor and the subsoil thereof objects with nuclear weapons or any other types of weapons of mass destruction, and to set up military bases, structures, installations, fortifications and other objects of a military nature."

3/ At the same time, the General Assembly by its resolution 2467 (XXIII) transformed the Ad Hoc Committee into a permanent forty-two member Committee on the Peaceful Uses of the Sea-Bed and the Ocean Floor Beyond the Limits of National Jurisdiction (Sea-Bed Committee). The military aspects having been brought to the attention of the ENDC, it was understood that the Sea-Bed Committee would direct its efforts, primarily, though not exclusively, towards the study of the non-military aspects of the exploration and exploitation of the sea-bed and the ocean floor.

4/ Official Records of the Disarmament Commission, Supplement for 1969, document DC/232, annex C, ENDC/240.

5/ ENDC/PV. 395.

84. The response of the members of the Committee to the Soviet draft varied. Thus, Bulgaria, Czechoslovakia, Ethiopia, Mexico, Poland, Romania, Sweden and the United Arab Republic expressed, explicitly or in principle, their preference for a complete demilitarization of the sea-bed and the ocean floor beyond the national jurisdiction. 6/ In this connexion Poland stated that the limitation of the scope of the treaty to weapons of mass destruction "might also be interpreted by some States as complete freedom to set up conventional military installations on the sea-bed and the ocean floor, for example, in the vicinity of the territorial waters of other States, which would inevitably lead to the escalation of international tension". 7/ Sweden pointed out that the most striking possible use of the sea-bed for military purposes concerned underwater missile bases for nuclear weapons. Other possible military uses concerned, in its opinion, anchoring mines, storing vital supplies, such as fissionable material or weapons in "caches" in the sea-bed, communications facilities and monitoring devices, base facilities for submarines, as well as the introduction of defence structures against various weapons. Sweden also noted that establishments for civilian purposes, such as oil extraction units, could be combined with a military installation, such as a missile base or an observation post. In its opinion "the potential realization of new developments will be dependent mainly on the underwater depth at which the various installations can be placed, for technical or economic reasons". 8/

85. While supporting in general complete demilitarization of the sea-bed and the ocean floor, Brazil 9/ and India 10/ considered that if, due to the prevailing international situation, it proved impossible to reach a comprehensive solution, at least an agreement should be concluded prohibiting the use of nuclear weapons and other weapons of mass destruction on the sea-bed and the ocean floor. As to other activities of a military nature, in the opinion of India, they should also be prohibited but after a thorough exchange of views and without "interfering with the legitimate rights of maritime nations in respect of communication links, navigational aids and other requirements".

86. Several members of the Committee however expressed doubts with regard to the Soviet proposal. The United States, for instance, while fully supporting peaceful

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6/ ENDC/PV.410, ENDC/PV.399, ENDC/PV.402, ENDC/PV.406, ENDC/PV.400, ENDC/PV.405 and ENDC/PV.403.

7/ ENDC/PV.406, para. 19.

8/ ENDC/PV.405, para. 71.

9/ ENDC/PV.413

10/ ENDC/PV.404.

uses of the sea-bed and the ocean floor, pointed out that in examining the question of arms control on the sea-bed it should not be forgotten that some sea-bed uses, such as communication and navigational aids, were for both military and non-military purposes. In its opinion the existence of submarine fleets required States to take action in self-defence, such as establishing warning systems on the sea-bed. In addition, much useful scientific research on the sea-bed was supported or carried out by military personnel using military non-weapons equipment. Therefore, it concluded, complete demilitarization would be "unworkable and probably harmful". Moreover, it would be completely impractical to try to prohibit conventional weapons on the sea-bed since "that type of prohibition would raise insuperable verification problems". In view of this the United States considered "that the most urgent problem is the danger of the emplacement of weapons of mass destruction on the sea-bed. Such deployment, whether nuclear, chemical, biological or radiological in nature, should be banned". 11/

87. The United Kingdom supported this view, suggesting that priority should be given to the prohibition of those weapons on which there was agreement, that is, on nuclear weapons and other weapons of mass destruction. As to other proposals for specific bans they should be considered on their own merits. 12/ A similar position was also taken by Italy, which considered that complete demilitarization was "not a realistic or acceptable basis for an agreement" since there were "certain uses of a typically defensive nature - for example, the emplacement of means of communication or the installation of acoustic systems for detecting and facilitating underwater navigation - which, in our opinion, should continue to be authorized in any case". 13/

88. While supporting in principle the reservations of the sea-bed and the ocean floor exclusively for peaceful purposes, Canada considered that the problem of demilitarization of this environment should be approached on a practical basis, which would assure the agreement of a large number of States. In order to facilitate this effort Canada 14/ suggested that, in elaborating an agreement on the subject, consideration should be given to the prohibition of:

"(a) all nuclear weapons and all weapons of mass destruction;
(b) all components of nuclear weapons and weapons of mass destruction;
(c) storage containers, launching platforms or vehicles for deployment or delivery of nuclear weapons and weapons of mass destruction;
(d) all other weapons, military activities, undersea bases or fortifications from which military action could be undertaken against the territory, territorial sea or air space of another State, including but not limited to:
(i) shore bombardement weapons or systems

11/ ENDC/PV.397, para. 35.

12/ ENDC/PV.404.

13/ ENDC/PV.410, para. 48.

14/ ENDC/PV.410, para. 5.

(ii) devices capable of disrupting communications, air and maritime navigation and other peaceful pursuits
(iii) devices to counter, disrupt, neutralize or render ineffective any defensive instruments of another State - that is, detection, surveillance, defensive first control and so on,
(iv) installations from which manner incursions could be mounted against another State
(v) chemical or other means of destroying or denying the sea-bed resources of another State."

89. Responding to some of the objections the Soviet Union made clarifications of certain provisions of its draft which dealt with scope. 15/ It pointed out that the concept of demilitarization covered specific matters, namely, renunciation of the right to station troops and to deploy objects and structures of a military character. In view of this definition it followed, in its opinion, "that demilitarization in no way implies the destruction, or prohibition of the emplacement and use, of means of communication, beacons and other installations having no direct military purpose". With regard to the objections that a considerable part of scientific research work was carried out by military personnel, the Soviet Union stated that it had become widely recognized that such personnel and military auxiliary equipment could be used for peaceful scientific research, especially in areas where the carrying out of such research met with considerable difficulties. Consequently, this question "cannot and should not constitute an obstacle to the complete demilitarization of the sea-bed and the ocean floor". As far as the question of a tracing system for the use of submarines for purposes of self-defence was concerned, the Soviet Union stated: "In this connexion we should like to point out that the Soviet draft treaty provides for the establishment of a twelve-mile coastal zone which would not be covered by the treaty and which would therefore be within the area in which States would have freedom of action, including the freedom to place submarine tracing stations. This provision of the draft treaty adequately meets the interests of States seeking to safeguard the security of their own territory. As for States which plan to place such stations far from their own coasts in neutral waters, the question naturally arises as to whether such stations are really being established for purposes of self-defence or for some other purpose."

90. On 22 May 1969, the United States submitted its own draft treaty. 16/ Articles I and II of the draft read as follows:

Article I

"1. Each State Party to this Treaty undertakes not to emplant or emplace fixed nuclear weapons or other weapons of mass destruction or associated fixed launching platforms on, within or beneath the sea-

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15/ ENDC/PV.400.

16/ Official Records of the Disarmament Commission, Supplement for 1969, document DC/232, annex C, ENDC/249.

bed and ocean floor beyond a narrow band, as defined in Article II of this Treaty, adjacent to the coast of any State.

"2. Each State Party to the Treaty undertakes to refrain from causing, encouraging, facilitating or in any way participating in the activities prohibited by this Article."

Article II

"1. For the purpose of this Treaty, the outer limit of the narrow band referred to in Article I shall be measured from baselines drawn in the manner specified in paragraph 2, hereof. The width of the narrow band shall be three (3) miles.

"2. Blank (Baselines)

"3. Nothing in this Treaty shall be interpreted as prejudicing the position of any State Party with respect to rights or claims which such State Party may assert; or with respect to recognition or non-recognition of rights or claims asserted by any other State, relating to territorial or other contiguous seas or to the seabed and ocean floor."

91. In presenting the draft the United States restated its belief that the only practical way to prevent an arms race on the sea-bed would be an agreement banning the emplacement or fixing of nuclear weapons and other weapons of mass destruction. "Such an agreement would remove the major threat to the peaceful uses of the sea-bed. At the same time, it would reduce the verification problem to manageable proportions and would be consistent with the security interests of coastal States." 17/

92. These differences in approach among members of the Committee, formalized by the submission of the different drafts, persisted for some time. In the course of the subsequent work of the Committee positions that had been taken by the member States were reiterated. Japan, having joined the Committee, declared itself in favour of complete demilitarization, but in view of the existing differences urged, at least, conclusion of an agreement prohibiting nuclear weapons and other weapons of mass destruction on the sea-bed and the ocean floor. 18/ In reiterating its position in support of partial demilitarization of the environment, the United States emphasized that "some non-nuclear but very clearly military uses of the sea-bed ... strictly defensive, are presently essential to our security and that of others and therefore must not be subject to treaty prohibitions". 19/ The Soviet Union, however, maintained that it did not see any grounds for limiting the problem of prohibiting military activities to prohibition of nuclear weapons and other weapons of mass destruction,

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17/ ENDC/PV.414, para. 6.

18/ ENDC/PV.420.

19/ ENDC/PV.421, para. 36.

in other words to such weapons as could be used for striking against the territory of States. It believed "that weapons which may be designed to strike at ships and to disrupt sea communications with a view to interrupting economic and trade relations between States represent no less danger to peace and world security. We must consider the question of prohibiting the emplacement of both nuclear and conventional weapons on the sea-bed in its entirety without trying to introduce any artificial limitations". 20/

93. After a series of informal consultations, a compromise solution on the scope was finally agreed. On 7 October 1969 the USSR and the United States jointly submitted a draft treaty, 21/ whose Articles I and II reads as follows:

Article I

"1. The States Parties to this Treaty undertake not to emplant or emplace on the seabed and the ocean floor and in the subsoil thereof beyond the maximum contiguous zone provided for in the 1958 Geneva Convention on the Territorial Sea and the Contiguous Zone any objects with nuclear weapons or any other types of weapons of mass destruction, as well as structures, launching installations or any other facilities specifically designed for storing, testing, or using such weapons.

"2. The undertakings of paragraph 1 of this Article shall also apply within the contiguous zone referred to in paragraph 1 of this Article, except that within that zone they shall not apply to the coastal State.

"3. The States Parties to this Treaty undertake not to assist, encourage or induce any State to commit actions prohibited by this Treaty and not to participate in any other way in such actions."

Article II

"1. For the purpose of this Treaty the outer limit of the contiguous zone referred to in Article I shall be measured in accordance with the provisions of Section II of the 1958 Geneva Convention on the Territorial Sea and the Contiguous Zone and in accordance with international law.

"2. Nothing in this Treaty shall be interpreted as supporting or prejudicing the position of any State Party with respect to rights or claims which such State Party may assert, or with respect to recognition or non-recognition of rights or claims asserted by any other State, related to waters off its coasts, or to the sea-bed and the ocean floor."

20/ ENDC/PV.423, para. 45.

21/ Official Records of the Disarmament Commission, Supplement for 1969, document DC/232, annex C, CCD/269.

94. Introducing the draft the Soviet Union emphasized that its objective was to settle at this stage the most important part of the problem of the demilitarization of the sea-bed, namely to prohibit the emplacement of the most dangerous types of weapons - weapons of mass destruction. This prohibition constituted only a first step towards complete demilitarization to which end the preamble stated the determination of the parties to continue negotiations concerning further measures. 22/ The United States, for its part, gave a detailed explanation of the scope. Thus, it stated that the provisions of Article I should be interpreted to prohibit, inter alia, nuclear mines that were anchored to or emplaced on the sea-bed, and that facilities specifically designed for using prohibited weapons would not, because they could also use conventional weapons, be exempted from the prohibitions. On the other hand, the United States remarked, the treaty would not apply to facilities for research or for commercial exploitation not specifically designed for storing, testing or using weapons of mass destruction. Neither would it apply to vehicles which would navigate in the water above the sea-bed, including submarines when either resting on or anchored to the sea-bed. Finally, it stressed that the prohibitions of the treaty were "not intended in any way to affect the conduct of peaceful nuclear explosions or to affect applications of nuclear reactors, scientific research, or other non-weapons applications of nuclear energy, consistent with other treaty obligations". 23/

95. On 30 October, a revised joint draft 24/ was tabled in the Committee by the two co-sponsors in an attempt to meet the reservations of a number of delegations. As regards the question of scope, the next text introduced an additional paragraph 2 in Article I which reads as follows:

> "2. The undertakings of paragraph 1 of this Article shall also apply within the contiguous zone referred to in paragraph 1 of this Article, except that within that zone they shall not apply to the coastal State."

96. At the twenty-fourth session of the General Assembly, many delegations commented on the draft treaty and some of them submitted proposals suggesting further changes in Articles I and II. Argentina tabled a working paper providing a text for those Articles, 25/ designed to remove its objections to the reference to the 1958 Geneva Convention. In a working paper 26/ containing considerations and proposals concerning the draft treaty, Mexico suggested the deletion of the reference to that Convention.

22/ ENDC/PV.440.

23/ ENDC/PV.440, para. 26.

24/ Document A/7741 (DC/233), Annex A.

25/ Official Records of the General Assembly, Twenty-fourth Session, annexes, agenda item 29 (A/C.1/997).

26/ Ibid., document A/C.1/995.

97. By resolution 2602 F (XXIV), the General Assembly welcomed the submission of the draft treaty and the various proposals and suggestions made in regard to it, and called on the CCD to continue its work on the subject.

98. On 23 April 1970, the Soviet Union and the United States submitted a revised draft treaty 27/ with Articles I, II and IV, substantially identical with the Argentine proposal in the General Assembly. A new revised draft, 28/ tabled by the co-sponsors on 1 September, introduced additional changes in other provisions, while the above-mentioned Articles remained as in the 23 April version. The scope of the Treaty, 29/ commended by General Assembly resolution 2660 (XXV), reads as follows:

Article I

"1. The States Parties to this Treaty undertake not to emplant or emplace on the sea-bed and the ocean floor and in the subsoil thereof beyond the outer limit of a sea-bed zone, as defined in article II, any nuclear weapons or any other types of weapons of mass destruction as well as structures, launching installations or any other facilities specifically designed for storing, testing or using such weapons.

"2. The undertakings of paragraph 1 of this article shall also apply to the sea-bed zone referred to in the same paragraph, except that within such sea-bed zone, they shall not apply either to the coastal State or to the sea-bed beneath its territorial waters.

"3. The States Parties to this Treaty undertake not to assist, encourage or induce any State to carry out activities referred to in paragraph 1 of this article and not to participate in any other way in such actions."

Article II

"For the purpose of this Treaty, the outer limit of the sea-bed zone referred to in article I shall be coterminous with the twelve-mile outer limit of the zone referred to in part II of the Convention on the Territorial Sea and the Contiguous Zone, signed at Geneva on 29 April 1958, and shall be measured in accordance with the provisions of part I, section II, of that Convention and in accordance with international law."

27/ Official Recores of the Disarmament Commission, Supplement for 1970, document DC/233, annex C, CCD/269/Rev. 2.

28/ Document CCD/269/Rev. 3.

29/ Official Records of the General Assembly, Twenty-fifth session, Supplement No. 28, (A/8028), Annex to Resolution 2660 (XXV), Legal Registration Number 13678 .

Article IV

"Nothing in this Treaty shall be interpreted as supporting or prejudicing the position of any State Party with respect to existing international conventions, including the 1958 Convention on the Territorial Sea and the Contiguous Zone, or with respect to rights or claims which such State Party may assert, or with respect to recognition or non-recognition of rights or claims asserted by any other State, related to waters off its coasts, including, inter alia, territorial seas and contiguous zones, or to the sea-bed and the ocean floor, including continental shelves."

Further measures

99. The agreement on the partial demilitarization of the sea-bed and the ocean floor, did not close the matter of the scope all together. Many States expressed the view that the issue should be further pursued and that, therefore, appropriate provisions should be included for the continuation of negotiations on the further demilitarization of the area. In response to this concern, in their joint draft of 7 October 1969, the co-sponsors included a provision in the third preambular paragraph which stated the determination of the parties to continue negotiations for the exclusion of the sea-bed and the ocean floor from the arms race. Although many delegations welcomed it as an appropriate commitment, many others were of the view that it was not sufficiently strong. Sweden, for example, considered it would be preferable to include such provision in the operative part of the Treaty, and to this effect put forward the text of a draft article, 30/ which read:

"Each of the Parties to the Treaty undertakes to continue negotiations in good faith on further measures relating to a more comprehensive prohibition of the use for military purposes of the sea-bed and the ocean floor and the subsoil thereof."

100. This view was shared by Bulgaria and Czechoslovakia, which supported the Swedish suggestion. However, in spite of the large measure of agreement among all the delegations that such a provision should find its place in the Treaty, differences persisted concerning the need of a separate article. Consequently, neither the first nor the second joint revised drafts, submitted on 30 October 1969 31/ and 23 April 1970, 32/ introduced any changes in this regard. Nevertheless, in the course of the deliberations, Sweden, supported by Bulgaria, Czechoslovakia, Hungary, Japan, Nigeria and Poland, reiterated on several occasions its proposal for a separate article covering the commitment on further negotiations. The same proposal was contained in a working paper submitted on 30 July 1970 by nine non-aligned members of the Committee - Burma, Ethiopia, Mexico, Morocco, Nigeria, Pakistan, Sweden, the United Arab Republic and Yugoslavia. 33/ Since the substance of the proposed provision did not seem to be

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30/ Official Records of the Disarmament Commission, Supplement for 1969, document DC/232, annex C, CCD/271.

31/ Ibid., annex A, CCD/269/Rev. 1.

32/ Ibid., Supplement for 1970, document DC/233, annex C, CCD/269/Rev. 2.

33/ Ibid., CCD/297.

controversial, the co-sponsors agreed to accommodate the demands for a separate article. The third, and at the same time the last joint revised draft, submitted to the CCD on 1 September 1970, included a new article, Article V, containing an undertaking by the Parties to continue negotiations. Although the wording was somewhat changed, in substance it corresponded to the non-aligned proposal. Without any further changes it was included in the final text of the Treaty as follows:

Article V

"The Parties to this Treaty undertake to continue negotiations in good faith concerning further measures in the field of disarmament for the prevention of an arms race on the sea-bed, the ocean floor and the subsoil thereof."

101. The questions relating to the scope of the Treaty and the commitment of Parties to continue negotiations were taken up again at the Review Conference of the Parties to the Treaty, which was held from 20 June to 1 July 1977 at Geneva, in pursuance of Article VII. The Article stipulates that "five years after the entry into force of this Treaty, a conference of Parties to the Treaty shall be held in Geneva, Switzerland, in order to review the operation of this Treaty with a view to assuring that the purposes of the preamble and the provisions of the Treaty are being realized".

102. Although the Conference unanimously concluded that the obligations undertaken pursuant to Article I have been faithfully observed by States Parties, several participants, notably Iran, Romania, Sweden and Yugoslavia referred to the need of examining carefully the possibilities of expanding the Treaty's scope. In this connexion a number of States recalled the provisions of Article V, many of them expressing concern over the fact that the commitment contained in that article had not yet been fulfilled. The Soviet Union, for its part, expressed its readiness to negotiate an international agreement or agreements to ban the emplacement on the sea-bed and the ocean floor of military objects that are not covered by the existing Treaty and other measures to reverse or contain the arms race on the sea-bed and the ocean floor. 34/ Even those States which considered that there was little prospect for an arms race on the sea-bed, including Australia, Canada, Denmark, Norway and the United States, agreed that the issue should be kept under review. Consequently, the Final Declaration, 35/ unanimously adopted, expressed the following in this respect:

"The Conference affirms the commitment undertaken in Article V to continue negotiations in good faith concerning further measures in the field of disarmament for the prevention of an arms race on the sea-

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34/ SBT/CONF./SR.2.

35/ SBT/CONF./24.

bed, the ocean floor and the subsoil thereof. To this end, the Conference requests that the Conference of the Committee on Disarmament, in consultation with the States Parties to the Treaty, taking into account the proposals made during this Conference and any relevant technological developments, proceed promptly with consideration of further measures in the field of disarmament for the prevention of an arms race on the sea-bed, the ocean floor and the subsoil thereof."

VI. CONVENTION ON THE PROHIBITION OF THE DEVELOPMENT, PRODUCTION AND STOCKPILING OF BACTERIOLOGICAL (BIOLOGICAL) AND TOXIN WEAPONS AND ON THEIR DESTRUCTION (Biological Convention)*/

Introduction

103. In its first resolution (1(I) of 24 January 1946, the General Assembly envisaged not only the elimination of atomic weapons, but also "of all other major weapons adaptable to mass destruction". Also, in resolution 41(I) of 14 December 1946, the General Assembly made specific recommendations to ensure the elimination of "atomic and all other major weapons adaptable now or in the future to mass destruction". In disarmament negotiations conducted in various bodies prior to the establishment of the Eighteen-Nation Committee on Disarmament (ENDC) in 1962, many references had been made to the elimination of "all weapons of mass destruction", and suggestions for the control and the elimination of chemical and biological weapons had been explicitly included in various proposals put forward at the time, but no detailed discussion took place on the subject. Only in recent years has this question moved closer to the forefront of disarmament negotiations.

104. In the "Joint statement of agreed principles for disarmament negotiations" of 1961,1/ one of the principles agreed to by the Soviet Union and the United States and accepted by the General Assembly in resolution 1722 (XVI), was that a programme for general and complete disarmament should contain provisions for the "elimination of all stockpiles of nuclear, chemical, bacteriological and other weapons of mass destruction, and the cessation of the production of such weapons". Both the Soviet Union and the United States drafts for general and complete disarmament, submitted to the ENDC in 1962, contained provisions for the elimination of chemical and biological weapons.2/

105. During the 1968 session of the ENDC, the Committee adopted a provisional agenda which, under the heading "non-nuclear measures", envisaged the discussion of the question of chemical and bacteriological warfare. A number of proposals on the subject were also made during the session. One of them was a working paper on microbiological warfare submitted by the United Kingdom,3/ in which it was asserted that, for a number of reasons, the Geneva Protocol of 1925 was not an entirely satisfactory instrument for dealing with the question of chemical and microbiological warfare, and it was suggested that the problem could become more manageable by considering chemical and microbiological methods of warfare separately. In view of this, the United Kingdom proposed the early conclusion of a new convention for the prohibition of microbiological methods of warfare, which would "supplement but not supersede" the Geneva Protocol. This Convention would ban the use for hostile purposes of micro-

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*/ The Convention was open for signature on 10 April 1972 at London, Moscow and Washington. It entered into force on 26 March 1975.

1/ Official Records of the General Assembly, Sixteenth Session, Annexes, agenda item 19, document A/4879.

2/ Official Records of the Disarmament Commission, Supplement for January 1961 to December 1962, document DC/203, annex 1, section C (ENDC/2), section F (ENDC/30).

3/ Ibid., Supplement for 1967 and 1968, document DC/231, annex I, ENDC/231.

biological agents causing death or disease by infection in man, other animals, or crops, and it would also include a ban on the production of microbiological agents "which was so worded as to take account of the fact that most of the microbiological agents that could be used in hostilities are also needed for peaceful purposes."

106. The Soviet Union was of the opinion that the British proposal meant the re-opening of issues which were long solved. In its view, the Geneva Protocol was not obsolete and its prohibitions covered not only methods and agents of warfare which existed at the time the Protocol had been concluded, but also the new methods and agents of warfare that had emerged since then.

107. The consideration of the issue subsequently resulted in the adoption by the General Assembly of resolution 2454 A (XXIII), requesting the Secretary-General to prepare, with the assistance of a group of experts, a report on the effects of the possible use of chemical and bacteriological means of warfare. After the submission of the report,4/ the ENDC gave considerable attention to the question of chemical and bacteriological (biological) weapons.

108. In compliance with its approach to this issue, which called for separate regulation of chemical and biological weapons, the United Kingdom submitted on 10 July 1969 a draft convention for the prohibition of biological methods of warfare.5/ The scope of the draft convention read as follows:

Article I

"Each of the Parties to the Convention undertakes, insofar as it may not already be committed in that respect under Treaties or other instruments in force prohibiting the use of chemical and biological methods of warfare, never in any circumstances, by making use for hostile purposes of microbial or other biological agents causing death, damage, or disease by infection or infestation to man, other animals, or crops, to engage in biological methods of warfare."

Article II

"Each of the Parties to the Convention undertakes:

(a) not to produce or otherwise acquire, or assist in or permit the production or acquisition of:

(i) microbial or other biological agents of types and in quantities that have no independent justification for prophylactic or other peaceful purposes;

(ii) ancillary equipment or vectors the purpose of which is to facilitate the use of such agents for hostile purposes;

4/ United Nations Publication, Sales No. E.69.I.24 (Document A/7575 and S/9292).

5/ Official Records of the Disarmament Commission, Supplement for 1969, document DC/232, annex C, ENDC/255/Rev.1.

(b) not to conduct, assist or permit research aimed at production of the kind prohibited in sub-paragraph (a) of this Article; and

(c) to destroy, or divert to peaceful purposes, within three months after the Convention comes into force for that Party, any stocks in its possession of such agents or ancillary equipment or vectors as have been produced or otherwise acquired for hostile purposes."

109. The United States supported the British position and stressed the difference between the two types of weapons. It pointed out that chemical weapons, unlike biological weapons, had actually been used in warfare and that, consequently, many States would be reluctant to give up the possession of chemical weapons without reliable assurances that other States were not developing, producing and stockpiling chemical weapons. It held that biological weapons presented less intractable problems, and that an agreement on banning them should not be delayed until agreement on a reliable prohibition of chemical weapons could be reached.

110. In objecting to the British approach, the Soviet Union agreed that chemical and biological weapons had been treated together in the Geneva Protocol and in the General Assembly resolutions, as well as in the report of the Secretary-General, and should therefore continue to be dealt with in the same instrument. In its opinion, a separate convention covering only biological weapons, might serve to intensify the chemical arms race.

111. On 19 September 1969 the Soviet Union, together with Bulgaria, the Byelorussian SSR, Czechoslovakia, Hungary, Mongolia, Poland, Romania and the Ukrainian SSR submitted a draft convention on the prohibition of the development, production and stockpiling of chemical and bacteriological (biological) weapons, and on the destruction of such weapons.6/ The relevant provisions of the draft were formulated as follows:

Article I

"Each State Party to this Convention undertakes not to develop, produce, stockpile or otherwise acquire chemical and bacteriological (biological) weapons."

Article II

"Each State Party to this Convention undertakes to destroy within a period of ..... - observing all the necessary precautions - or to divert to peaceful uses all previously accumulated chemical and bacteriological (biological) weapons in its possession."

Article III

"Each State Party to the Convention undertakes not to assist, encourage or induce any particular State, group of States or international organizations to develop, produce or otherwise acquire and stockpile chemical and bacteriological (biological) weapons."

6/ Official Records of the General Assembly, Twenty-fourth Session, Annexes, agenda item 104, document A/7655.

112. The draft convention won explicit support from a number of States which for a long time had favoured a comprehensive prohibition. Some other States, while welcoming the comprehensive approach, pointed out that it would be acceptable only with an adequate control system.

113. On 25 November 1969, the United States unilaterally renounced the first use of lethal or incapacitating chemical agents and weapons, and unconditionally renounced all methods of biological warfare. On 14 February 1970 the ban was extended to cover toxins. This action was followed by a number of other States. Thus, Canada, Sweden and the United Kingdom announced that they had no biological weapons nor the intention to produce them. Although these unilateral actions were widely welcomed, it was generally recognized that they should be followed by a binding international commitment. A breakthrough was made on 30 March 1971 when the Soviet Union, together with Bulgaria, Czechoslovakia, Hungary, Mongolia, Poland and Romania submitted to the CCD a new draft convention limited in scope to biological weapons and toxins.7/ Its pertinent provisions read as follows:

Article I

"Each State Party to this Convention undertakes not to develop, produce, stockpile or otherwise acquire:

(1) microbiological or other biological agents or toxins of such types and in such quantities as are not designed for the prevention of disease or for other peaceful purposes;

(2) auxillary equipment or means of delivery designed to facilitate the use of such agents or toxins for hostile purposes."

Article II

"Each State Party to this Convention undertakes to destroy within a period of three months after the entry into force of the Convention - observing all the necessary precautions - or to divert to peaceful uses all previously accumulated weapons in its possession as well as the equipment and means of delivery mentioned in Article I of the Convention."

Article III

"Each State Party to the Convention undertakes not to assist, encourage or induce any particular State, group of States or international organizations to take action contrary to the provisions of this Convention."

114. A number of States, in particular non-aligned, while welcoming the draft in general, reiterated their preference for a comprehensive prohibition

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7/ Official Records of the Disarmament Commission, Supplement for 1971, document DC/234, CCD/325/Rev.1.

of both chemical and biological weapons. Objections were raised to Article I, as the proposed ban did not cover research work. In view of this, the United Arab Republic submitted a specific proposal with the purpose of including it among the activities to be prohibited.8/

115. Those States which had advocated a separate regulation of biological weapons welcomed the draft convention as an acceptable basis for further negotiations. They also made it clear that it was the only possible way of approaching this issue if unnecessary delay was to be avoided. Following further exchanges of views, on 5 August 1971, the co-sponsors of the 30 March draft and the United States submitted separate but identical texts of a draft convention on bacteriological (biological) and toxin weapons.9/ All three articles dealing with the scope were further improved by widening it. For example, the undertaking in Article II to destroy, or to divert to peaceful purposes, the agents, weapons and materials possessed by the Parties, as specified in Article I, was extended to cover those under their jurisdiction or control. Similarly, the undertaking in Article III was broadened to include a ban on the transfer. The main objections to the draft related again to the prohibition of research work, as a number of States considered that this would considerably strengthen the Convention. Others, however, argued that research work was indispensable for the use of biological agents or toxins for prophylactic and other peaceful purposes. No agreement was reached, either on this issue or with regard to a ban on research work concerning weapons, equipment or means of delivery designed to use these agents and toxins for hostile purposes. Some States agreed that, in view of the total destruction of these weapons and the prohibition of their production, such a provision would be redundant. Additional changes were later introduced in the draft, some of them in article I, which further strengthened the undertaking by insertion of the words "never in any circumstances". The new revised draft10/ was tabled on 28 September 1971 also with the co-sponsorship of Canada, Italy, the Netherlands and the United Kingdom and transmitted to the General Assembly for its consideration.

116. On 16 December, by resolution 2826 (XXVI), the Assembly commended the Convention. The relevant articles read as follows.11/

Article I

"Each State Party to this Convention undertakes never in any circumstances to develop, produce, stockpile or otherwise acquire or retain:

(1) Microbial or other biological agents, or toxins whatever their origin or method of production, of types and in quantities that have no justification for prophylactic, protective or other peaceful purposes;

(2) Weapons, equipment or means of delivery designed to use such agents or toxins for hostile purposes or in armed conflict."

8/ Ibid., document CCD/328.

9/ Ibid., documents CCD/337 and CCD/338. 10/ Ibid., document CCD/353.

11/ The United Nations and Disarmament, 1970-1975 (United Nations Publication, Sales No. E.76.IX.I), pp. 246-247.

Article II

"Each State Party to this Convention undertakes to destroy, or to divert to peaceful purposes, as soon as possible but not later than nine months after the entry into force of the Convention all agents, toxins, weapons, equipment and means of delivery specified in Article I of the Convention, which are in its possession or under its jurisdiction or control. In implementing the provisions of this Article all necessary safety precautions shall be observed to protect populations and the environment."

Article III

"Each State Party to this Convention undertakes not to transfer to any recipient whatsoever, directly or indirectly, and not in any way to assist, encourage, or induce any State, group of States or international organizations to manufacture or otherwise acquire any of the agents, toxins, weapons, equipment or means of delivery specified in Article I of the Convention."

Further measures

117. As soon as it became obvious that a joint ban of chemical and biological weapons was not possible, and that the efforts would concentrate first on biological weapons, the question of further measures for broadening the proposed scope to cover chemical weapons as well received increased attention by a number of States, particularly non-aligned. The identical drafts of 5 August 1971 contained several provisions concerning this question. Thus, the eleventh preambular paragraph stated:

"Convinced that an agreement on the prohibition of bacteriological (biological) and toxin weapons will facilitate progress towards the achievement of agreement on effective measures to prohibit the development, production and stockpiling of chemical weapons, on which negotiations will be continued", Article VIII of the drafts was even more explicit:

"Each State Party to this Convention undertakes to conduct negotiations in good faith on effective measures for prohibiting the development, production and stockpiling of chemical weapons and for their destruction and on appropriate measures concerning the equipment and means of delivery specifically designed for the production or use of chemical weapons for warfare".

118. These provisions were generally welcomed. However, a number of suggestions were made with a view to giving practical effect to the proposed undertaking. Mexico, for example, put forward a specific proposal for the inclusion of an additional article in the draft which would read:12/

"Pending the agreement referred to in Article VIII, the States Parties to this Convention undertake to refrain from any further

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12/ Official Records of the Disarmament Commission, Supplement for 1971, document DC/234, CCD/346.

development, production or stockpiling of those chemical agents for weapons purposes which because of their degree of toxicity have the highest lethal effects. The agents in question are listed in the Protocol annexed to this Convention".

119. A similar proposal was made by Morocco, which stated that it would be highly desirable to reach agreement, immediately after the entry into force of the biological convention, on the cessation of the production of chemical weapons.13/ Although supported by several delegations, the proposal could not be accepted by other delegations, which considered that such an undertaking, inter alia, should be adequately verified. However, discussions which followed resulted in the improvement of the proposed text of the draft convention. Changes were made in the preambular paragraph and in article VIII strengthening the link between biological and chemical disarmament. The relevant provisions of the Convention in its final form read:

Eighth preambular paragraph

"Recognizing that an agreement on the prohibition of bacteriological (biological) and toxin weapons represents a first possible step towards the achievement of agreement on effective measures also for the prohibition of the development, production and stockpiling of chemical weapons, and determined to continue negotiations to that end",

...

Article IX

"Each State Party to this Convention affirms the recognized objective of effective prohibition of chemical weapons and, to this end, undertakes to continue negotiations in good faith with a view to reaching early agreement on effective measures for the prohibition of their development, production and stockpiling and for their destruction, and on appropriate measures concerning equipment and means of delivery specifically designed for the production or use of chemical agents for weapons purposes".

120. The negotiations in pursuance of these provisions are continuing in the CCD. A number of proposals have been put forward, including three draft conventions. On 28 March 1972, the Soviet Union introduced a draft convention on the prohibition of the development, production and stockpiling of chemical weapons and on their destruction,14/ co-sponsored by Bulgaria, Czechoslovakia, Hungary, Mongolia, Poland and Romania. During the 1973 session, Argentina,

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13/ Ibid., document CCD/347.

14/ Ibid., Supplement for 1972, document DC/235, annex B, CCD/361.

Brazil, Burma, Egypt, Ethiopia, Mexico, Morocco, Nigeria, Sweden and Yugoslavia submitted a working paper containing suggestions for a ban on chemical weapons.15/ In April 1974, Japan tabled a draft convention on the prohibition of the development, production and stockpiling of chemical weapons and on their destruction.16/ On 3 July 1974, the Soviet Union and the United States agreed to consider a joint initiative in the CCD with respect to the conclusion, as a first step, of an international convention dealing with the most dangerous, lethal means of chemical warfare.17/ Consultations are being held by the two powers concerning the joint initiative. On 12 August 1976 the United Kingdom introduced in the CCD a draft convention on the prohibition of the development, production and stockpiling of chemical weapons on their destruction.18/

15/ Official Records of the General Assembly, Twenty-eighth Session, Supplement No. 31 (A/9141), document CCD/400.

16/ Ibid., Twenty-ninth Session, Supplement No. 27 (A/9627), document CCD/426.

17/ Official Records of the General Assembly, Twenty-ninth Session, Annexes, agenda item 28, document A/9698.

18/ Document CCD/512.

VII. Convention on the Prohibition of Military or any Other Hostile Use of Environmental Modification Techniques (ENMOD Convention) */

120. At the 1974 session of the CCD, Sweden suggested that the meteorological field required closer attention to see what measures could be taken to prevent the development of methods for meteorological warfare. 1/

121. On 3 July of the same year, the Soviet Union and the United States made a joint statement in which, after recognizing that the use of environmental modification techniques for military purposes could have widespread, long-lasting and severe effects, they advocated the most effective measures possible to overcome the dangers of the use of such techniques. They also decided to hold a meeting of United States and Soviet representatives for the purpose of exploring the problem. 2/ It was on this occasion that, for the first time, the elements for the scope of an eventual ban on environmental warfare were included in an international document.

122. Also in 1974, at the request of the Soviet Union, an item on the prohibition of action to influence the environment for military and other purposes was inscribed in the agenda of the General Assembly. 3/ On 24 September, the Soviet Union introduced in the Assembly a draft resolution, subsequently revised and co-sponsored by 23 other States, to which a draft convention was annexed. Articles I and II of the draft convention read as follows:

Article I

"Each of the Parties to this Convention undertakes not to use meteorological, geophysical or any other scientific or technological means of influencing the environment, including the weather and climate, for military and other purposes incompatible with the maintenance of international security, human well-being and health, and, furthermore, never under any circumstances to resort to such means of influencing the environment and climate or to carry out preparations for their use."

Article II

"1. For the purposes of this Convention, the activities referred to in Article I consist of those active influences on the surface of the land, the sea-bed and the ocean floor, the depths of the earth, the marine environment, the atmosphere or on any other elements of the environment that may cause damage by the following means:

(a) Introduction to the cloud systems (air masses) of chemical reagents for the purpose of causing precipitation (formation of clouds) and other means of bringing about a redistribution of water resources;

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*/ The Convention was opened for signature on 18 May 1977 at Geneva.

1/ CCD/PV. 633.

2/ Official Records of the General Assembly, Twenty-ninth Session, Annexes, agenda item 28, document A/9698.

3/ Official Records of the General Assembly, Twenty-ninth Session, Annexes, agenda item 103, Document A/9703 (incorporating document A/9702/Corr.1).

(b) Modification of the elements of the weather, climate and the hydrological system on land in any part of the surface of the earth;

(c) Direct or indirect action to influence the electrical processes in the atmosphere;

(d) Direct or indirect disturbance of the elements of the energy and water balance of meteorological phenomena (cyclones, anticyclones, cloud front systems);

(e) Direct or indirect modifications of the physical and chemical parameters of the seas and oceans, the seashore, sea-bed and ocean floor that may lead to a change in the hydrological system, water interchange process and ecology of the biological resources of the seas and oceans;

(f) Direct or indirect stimulation of seismic waves by any methods or means that may produce earthquakes and accompanying processes and phenomena, or destructive ocean waves, including tsunami;

(g) Direct or indirect action on the surface of an area of water that may lead to a disturbance of the thermal and gaseous interchange between the hydrosphere and the atmosphere;

(h) The creation of artificial continuous electromagnetic and acoustic fields in the oceans and seas;

(i) Modification of the natural state of the rivers, lakes, swamps and other aqueous elements of the land by any methods or means, leading to reduction in the water-level, drying up, flooding, inundation, destruction of hydrotechnical installations or having other harmful consequences;

(j) Disturbance of the natural state of the lithosphere, including the land surface, by mechanical, physical or other means, causing erosion, a change in the mechanical structure, desiccation or flooding of the soil, or interference with irrigation or land improvement systems;

(k) The burning of vegetation and other actions leading to a disturbance of the ecology of the vegetable and animal kingdom;

(l) Direct or indirect action to influence the ionized or ozone layers in the atmosphere, the introduction of heat and radiant energy absorbing agents in the atmosphere and the contiguous layer, or other action that might lead to disturbances of the thermal and radiation equilibrium of the earth-atmosphere-sun system."

"2. Subsequently, in accordance with the provisions of this Convention, the list of actions enumerated in paragraph 1 of this article may be supplemented or amended depending upon the progress of scientific and technological research.

123. The draft resolution was adopted as resolution 3264 (XXIX), by which the General Assembly considered it necessary to work towards an international convention on environmental warfare; took note of the draft convention submitted by the Soviet Union, as well as other views and suggestions put forward during the discussion; and requested the CCD to proceed as soon as possible towards achieving agreement on the text of a convention.

124. During its 1975 session, at the request of Sweden, the CCD held informal meetings on the subject, and on 21 August 1975 the Soviet Union and the United States submitted identical texts of a draft convention on the prohibition of military or any other hostile use of environmental modification techniques. 4/ Articles I and II, dealing with the question of scope, read as follows:

Article I

"1. Each State Party to this Convention undertakes not to engage in 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 another State Party.

"2. Each State Party to this Convention undertakes not to assist, encourage or induce any State, group of States or international organization to engage in activities contrary to the provision of paragraph 1 of this article."

Article II

"As used in Article I, the term "environmental modification techniques" refers to any technique for changing - through the deliverate manipulation of natural processes - the dynamics, composition or structure of the earth, including its biota, lithosphere, hydrosphere, and atmosphere, or of outer space, so as to cause such effects as earthquakes and tsunamis, an upset in the ecological balance of a region, or changes in weather patterns (clouds, precipitation, cyclones of various types and tornadic storms), in the state of the ozone layer or ionosphere, in climate patterns, or in ocean currents."

125. At its thirtieth session, in 1975, the General Assembly considered the report of the CCD on the matter and adopted resolution 3475 (XXX) which noted with satisfaction the submission of the identical draft conventions and that other delegations offered suggestions and preliminary observations regarding the drafts. It requested the CCD to continue negotiations with a view to reaching early agreement, if possible during the CCD's 1976 session, on the text of a convention on the prohibition of military or other hostile uses of environmental modification techniques.

126. At the 1976 session of the CCD, a number of suggestions were made in connexion with the scope of the prohibition as provided for in Articles I and II of the identical drafts, both in plenary statements and in the Ad Hoc Working Group established by the Committee for the purpose of considering any modifications to the identical texts of a draft convention and of facilitating the negotiation of a text of an agreement.

4/ CCD/471 and CCD/472.

Article I

127. As regards Article I, several comments and proposals for modification were put forward, as discussed below under headings indicating their contents:

1. Suggestions for clarifying or eliminating the phrase "having widespread long-lasting or severe effects."

128. Argentina and Mexico suggested the deletion of the phrase, which they felt would not provide for a comprehensive prohibition. 5/ Yugoslavia also favoured a ban on techniques which caused any damage. 6/ On the other hand, the United Kingdom held that the phrase should be retained, but believed that there should be a definition of the terms. 7/ The Federal Republic of Germany, Italy, Japan and Sweden expressed similar views. 8/ The Netherlands strongly stressed the need for a clear understanding of the terms and concluded that, on balance, a total ban was preferable. 9/ Iran also thought that a total ban would be more effective. 10/ The Soviet Union stated that the choice of those words was due above all to the fact that those were the types of effects which presented the main danger, while the United States held that the low threshold of applicability of the prohibition raised a strong practical inhibition against any hostile use of techniques having, or that would be expected to have, effects anywhere near the threshold criteria. 11/

2. Restricting the ban to "hostile use" without reference to "military use"

129. Canada, Egypt, the Federal Republic of Germany, Sweden and the United Kingdom expressed doubts on the need for the word "military", arguing that it was unnecessary or even confusing. 12/ While agreeing that this term was not essential, the co-sponsors maintained that it emphasized the prohibition of the military use of environmental modification techniques in armed conflicts, as well as their hostile use when no other weapons were being used or when there was no overt conflict. 13/ Bulgaria, India and Mongolia expressed similar views. 14/

3. Replace the words "having ... effects" with "likely to have ... effects", or a similar phrase

130. Japan, the Netherlands and Sweden considered that it would be desirable to amend the phrase along those or similar lines. 15/ The United States explained that the ban was intended to cover only those uses that resulted in the specified

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5/ CCD/PV.695 and CCD/PV.724.
6/ CCD/PV.701.
7/ CCD/PV.695.
8/ CCD/PV.697, 701, 699 and 697.
9/ CCD/PV.692.
10/ CCD/PV.697.
11/ CCD/PV.726 and CCD/727.
12/ CCD/PV.699; CCD/PV.701; CCD/PV.697 and 702; CCD/PV.697 and CCD/PV.695.
13/ CCD/PV.691 and CCD/PV.698.
14/ CCD/PV.703; CCD/PV.710; and CCD/PV.702.
15/ CCD/PV.699; CCD/PV.692 and CCD/PV.697.

effects or those which could reasonably have been expected to result in such effects. 16/ Canada and India stated that the word "having" was more comprehensive than the suggested changes. 17/

4. Addition of a ban on "threat of use"

131. Egypt, Japan, Pakistan and Sweden, 18/ supported by the Federal Republic of Germany, Italy and Romania 19/ suggested such a ban. In the opinion of the co-sponsors, this change was not necessary since Parties would undertake not to use environmental modification techniques for military or other hostile purpose. 20/ Bulgaria held similar views. 21/

5. Addition of a ban on "preparation for use" or on "research and development"

132. The Netherlands, supported by Argentina, Hungary and Romania, favoured such a ban. 22/ Canada, India and the United States noted that a ban on research and development would be either ineffective or impracticable, 23/ while the German Democratic Republic considered that the prohibition of military use covered the preparation of armed forces for such use. 24/

6. Application of the ban to all States rather than to States Parties only

133. Egypt, Iran, Japan, Mexico, the Netherlands and Yugoslavia suggested that the ban on use should apply to all States, parties or not to the convention. 25/ The Soviet Union, supported by Bulgaria, Canada and Mongolia, stated that in that case States not parties would have no incentive to accede to the convention. 26/ India also supported the wording of the draft. 27/

7. Questions relating to the interpretation of Article I

134. A number of questions were also discussed in the Committee concerning the interpretation of the provisions of Article I, such as the application of the ban to acts of retaliation and self-defence, the need to avoid duplication with the draft protocols on humanitarian law in armed conflicts and the meaning of the phrase "destruction, damage or injury".

16/ CCD/PV.691 and 703

17/ CCD/PV.699 and CCD/PV.710

18/ CCD/PV.701; CCD/PV.699; CCD/PV.717; and CCD/PV.697

19/ CCD/PV.697; CCD/PV.701; and CCD/PV.703

20/ CCD/PV.691 and CCD/PV.698

21/ CCD/PV.694

22/ CCD/PV.692; CCD/PV.695; CCD/PV.693; and CCD/PV.703

23/ CCD/PV.699; CCD/PV.710; and CCD/PV.703

24/ CCD/PV.698

25/ CCD/PV.701; CCD/PV.697; CCD/PV.699; CCD/PV.724; CCD/PV.692; and CCD/PV.701

26/ CCD/PV.698; CCD/PV.703; CCD/PV.699; and CCD/PV.702.

27/ CCD/PV.710.

Article II

135. As regards Article II, a number of delegations suggested changes or additions to the definition of the term "environmental modification techniques" or to the list of examples included in the draft. Other delegations held that such a list was unnecessary and superfluous. Still others maintained that it was the result of very careful consideration and would serve a useful purpose, while a number of them proposed that, since the list was only illustrative, it should form an annex to the convention.

136. As a result of the deliberations in the Ad Hoc Working Group, some modifications were introduced in the original draft. The text of Article I was maintained, but an understanding was agreed to, interpreting, for the purposes of the Convention, the terms "widespread", "long-lasting" and "severe". The definition of "environmental modification techniques" in Article II was also retained. However, the list of examples originally included in the Article became part of an understanding, which noted its merely illustrative character and stated that all the phenomena thus listed would be prohibited. The revised draft also included a new Article VIII relating to the convening of review conferences which should, in particular, "examine the effectiveness of the provisions of paragraph 1 of Article I in eliminating the dangers" of environmental warfare. Articles I and II of the draft convention and their understandings read as follows:

Article I

"1. Each State Party to this Convention undertakes not to engage in 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.

"2. Each State Party to this Convention undertakes not to assist, encourage or induce any State, group of States or international organization to engage in activities contrary to the provisions of paragraph 1 of this article."

Article II

"As used in article I, 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."

Understanding relating to Article I

"It is the understanding of the Committee that, for the purposes of this Convention, the terms "widespread", "long-lasting" and "severe" shall be interpreted as follows:

(a) "widespread": encompassing an area on the scale of several hundred square kilometres;

(b) "long-lasting": lasting for a period of months, or approximately a season;

(c) "severe": involving serious or significant disruption or harm to human life, natural and economic resources or other assets.

"It is further understood that the interpretation set forth above is intended exclusively for this Convention and is not intended to prejudice the interpretation of the same or similar terms if used in connexion with any other international agreement."

Understanding relating to Article II

"It is the understanding of the Committee that the following examples are illustrative of phenomena that could be caused by the use of environmental modification techniques as defined in Article II of the Convention: earthquakes; tsunamis; an upset in the ecological balance of a region; changes in weather patterns (clouds, precipitation, cyclones of various types and tornadic storms); changes in climate patterns; changes in ocean currents; changes in the state of the ozone layer; and changes in the state of the ionosphere.

"It is further understood that all the phenomena listed above, when produced by military or any other hostile use of environmental modification techniques, would result, or could reasonably be expected to result, in widespread, long-lasting or severe destruction, damage or injury. Thus, military or any other hostile use of environmental modification techniques as defined in Article II, so as to cause those phenomena as a means of destruction, damage or injury to another State Party, would be prohibited.

"It is recognized, moreover, that the list of examples set out above is not exhaustive. Other phenomena which could result from the use of environmental modification techniques as defined in Article II could also be appropriately included. The absence of such phenomena from the list does not in any way imply that the undertaking contained in Article I would not be applicable to those phenomena, provided the criteria set out in that article were met."

137. Although there was no agreement in the Ad Hoc Working Group on other modifications, Argentina and Mexico, in particular, continued to hold the view that the phrase "having widespread, long-lasting or severe effects" in Article I might legitimize many acts of environmental warfare. 28/

138. Finally, the CCD agreed to transmit to the General Assembly, as an annex to its report, the report of the Ad Hoc Working Group containing the draft convention, as well as comments dissenting views and reservations thereon. 29/

139. At its thirty-first session, the General Assembly adopted by 96 in favour, 8 against and 30 abstentions resolution 31/72 which, inter alia, referred the Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques 30/ to all States for their consideration, signature and ratification; and requested the Secretary-General to open it for signature and ratification at the earliest possible date. On 18 May 1977 the Convention was opened for signature at Geneva.

28/ CCD/PV.727.

29/ Official Records of the General Assembly, Thirty-first Session, Supplement No. 27, (A/31/27).

30/ See Annex to resolution 31/72.

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PREPARATORY COMMITTEE FOR THE SPECIAL SESSION OF THE GENERAL ASSEMBLY DEVOTED TO DISARMAMENT

A COMPREHENSIVE STUDY OF OFFICIAL PROPOSALS OR DECLARATIONS MADE AND DECISIONS TAKEN BY THE GENERAL ASSEMBLY ON THE PROCEDURE OF UNILATERAL OR NEGOTIATED MORATORIA AS A PROVISIONAL MEASURE FOR THE PROHIBITION OF NUCLEAR-WEAPON TESTS, AS WELL AS THEIR APPLICATION BY ANY STATE

Working paper prepared by the Secretariat

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77-15694

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INTRODUCTION

1. By its resolution 31/189 of 21 December 1976, the General Assembly decided to convene a special session devoted to disarmament, to be held in New York in May/June 1978. It further decided to establish a Preparatory Committee for the Special Session of the General Assembly Devoted to Disarmament, composed of 54 Member States appointed by the President of the Assembly on the basis of equitable geographical distribution, with the mandate of examining all relevant questions relating to the special session, including its agenda, and to submit to the Assembly at its thirty-second session appropriate recommendations thereon.

2. The General Assembly also requested the Secretary-General to render the Preparatory Committee all necessary assistance, including the provision of essential background information, relevant documents and summary records.

3. At its 14th meeting on 20 May 1977, the Preparatory Committee requested the Secretariat to prepare certain working papers. Included among them was "A comprehensive study of official proposals or declarations made and decisions taken by the General Assembly on the procedure of unilateral or negotiated moratoria as a provisional measure for the prohibition of nuclear-weapon tests, as well as their application by any State".

4. In response to this request of the Preparatory Committee, the Secretariat has prepared this working paper, which draws mainly on the publication The United Nations and Disarmament, 1945-1970 and its supplement The United Nations and Disarmament, 1970-1975 and other United Nations documents.

MORATORIA FOR THE PROHIBITION OF NUCLEAR-WEAPON TESTS

1. Voluntary suspension of testing 1958-1961

5. In 1957, nuclear testing reached a higher level of activity than in any previous year. The United Kingdom and the United States completed a programme of tests in November and early December of that year, while the Soviet Union concluded a series of tests at the end of March 1958.

6. On 31 March 1958, the Supreme Soviet of the Soviet Union adopted a decree unilaterally suspending nuclear testing, and on 4 April, Premier Khrushchev wrote to President Eisenhower drawing attention to the Soviet decision and calling on the Western Powers to suspend nuclear testing also, but reserving the right to resume testing should the Western Powers do so. In his reply of 8 April, President Eisenhower observed that the forthcoming United States programme of testing had been announced for a long time; he proposed that technicians from both sides should study the specific control measures which would be necessary if an agreement were ever to be reached on the limitation or suspension of testing. At the end of the month, the United Kingdom and the United States resumed testing.

7. During the thirteenth session of the General Assembly in 1958, the United Kingdom and the United States announced their intention to suspend tests for one year from 31 October 1958, when test ban negotiations among the three nuclear

Powers were to begin in Geneva, provided the Soviet Union did not resume nuclear testing. They further offered to extend the suspension on a year-by-year basis provided that the inspection system to be established during the first year of a test ban treaty was working effectively and that "satisfactory progress" was being made in other fields of disarmament.

8. On 4 November 1958, the General Assembly adopted resolution 1252 A (XIII), by which the General Assembly, inter alia, urged the parties involved in negotiations on the suspension of nuclear-weapon tests not to undertake further testing of nuclear weapons while these negotiations were in progress.

9. On 31 October 1958, the Soviet Union transmitted to the United Nations a statement in connexion with the Conference on the Discontinuance of Nuclear Weapon Tests. 1/ Observing that the United States and the United Kingdom had intensified their nuclear-weapon testing programme after the USSR had unilaterally suspended testing on 31 March, the Soviet Union declared its right to continue test explosions on a "one-to-one ratio" to the combined number of explosions carried out by the two Western Powers since 31 March.

10. On 7 November the United States transmitted the text of a statement by President Eisenhower 2/ noting that the Soviet Union had continued the testing of nuclear weapons despite the opening of negotiations in Geneva on 31 October and despite the General Assembly's adoption of resolution 1252 A (XIII) on 4 November. President Eisenhower said that the United States would, nevertheless, continue the suspension of tests, and hoped that the Soviet Union would do the same. In fact, the United Kingdom suspended nuclear tests after 23 September 1958, the United States after 30 October and the Soviet Union after 3 November.

11. At the fourteenth session of the General Assembly, in 1959, India submitted a draft resolution, co-sponsored by 23 other countries, 3/ whereby the General Assembly would appeal to the States concerned in the Geneva discussions to continue their present voluntary suspension of tests, and to other States to desist from such tests. It was adopted as resolution 1402 B (XIV).

12. Austria, Japan and Sweden also submitted a draft resolution, 4/ by which the Assembly would urge the States concerned to continue their voluntary discontinuance of the testing of nuclear weapons. It was adopted as resolution 1402 A (XIV).

13. The Western Powers considered that the unilateral undertaking to suspend nuclear-weapon tests had expired on 1 December 1959 when President Eisenhower had issued the following statement:

> "Although we consider ourselves free to resume nuclear-weapons testing, we shall not resume nuclear-weapons tests without announcing our intention in advance of any resumption. During the period of voluntary suspension of nuclear-weapons tests, the United States will continue its active program of weapon research, development and laboratory-type examination."

14. On 3 January 1960, Premier Khrushchev stated that the Soviet Union would not resume testing unless the Western Powers did so.

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15. At the Geneva conference in March 1960, the Soviet Union proposed that a treaty should ban tests in the atmosphere, in outer space, under water, and underground to a seismic threshold of 4.75 and should be associated with a moratorium on all testing below the threshold of 4.75. Following the meeting between President Eisenhower and Prime Minister MacMillan at the end of March, the Western Powers agreed to the Soviet proposal, provided that a co-ordinated regional programme to improve detection procedures was instituted forthwith and that the moratorium on testing below the threshold was for a fixed term only.

16. At the fifteenth session of the General Assembly, in 1960, a draft resolution was submitted by Austria, India and Sweden 5/ that urged the States concerned in the Geneva negotiations to continue their present voluntary suspension of the testing of nuclear weapons and to seek a solution to "the few remaining questions". Another draft resolution, a 26-Power text, 6/ requested also other States to refrain from undertaking such tests.

17. The Soviet Union supported both draft resolutions, noting that the 26-Power draft had the merit of also appealing to other States to refrain from carrying out such tests.

18. The United States explained that it would abstain on both the three-Power and 26-Power draft resolutions. The United States had reservations about the requests in both drafts for the continuance of the present voluntary suspension of nuclear-weapon testing. The policy of the United States Government remained that the moratorium had ended on 31 December 1959. Though the United States would not resume nuclear-weapon tests without stating in advance its intention of doing so, it was concerned lest the possibility of the indeterminate extension of voluntary suspension of nuclear testing came to be regarded as an acceptable alternative to a safeguarded agreement on nuclear testing.

19. On 20 December 1960, the Assembly adopted the three-Power text as resolution 1577 (XV) and the 26-Power text as resolution 1578 (XV). 7/

20. At the Geneva conference between March and May 1961, the United States and the United Kingdom submitted new proposals, among others, extending to three years the moratorium on underground testing below the 4.75 seismic threshold.

21. On 30 August 1961, the USSR Government declared that, faced with the increasing aggressiveness of the NATO military bloc, it had been compelled, in order to strengthen its security, to take a number of steps, including the carrying out of experimental nuclear-weapon explosions. 8/

22. The President of the United States declared on the same day that the USSR's unilateral decision obliged the United States to decide what its own national interests required. From 1 September to 4 November, the Soviet Union conducted a series of tests, mostly thermonuclear and all but one in the atmosphere. The United States resumed underground testing on 15 September and announced several underground explosions before the end of 1961. 9/

2. Proposals for moratoria in the 1960s

23. On 23 October 1961, a draft resolution on the continuation of the suspension of nuclear and thermonuclear-weapon tests, submitted to the General Assembly by Ethiopia, Ghana, India, Nepal, the United Arab Republic and Yugoslavia, 10/ urged the States concerned to refrain from further test explosions pending the conclusion of necessary internationally binding agreements in regard to tests.

24. The six-Power draft resolution was opposed by all the nuclear Powers - France, the Soviet Union, the United States and the United Kingdom. The United Kingdom and the United States declared that they would not accept another uncontrolled moratorium because it had failed in the past and had permitted secret preparations owing to the lack of controls.

25. On 6 November, the Assembly adopted the non-aligned draft as resolution 1648 (XVI). 11/

26. Upon the resumption, on 28 November 1961, of the Geneva Conference, the Soviet Union put forward a draft agreement on the discontinuance of nuclear-weapon tests in the atmosphere, in outer space and under water, which provided for supervision of the ban to be carried out through the existing national means of detection and also for a moratorium on underground tests until a control system had been developed as part of a system of control over general and complete disarmament.

27. The United Kingdom and the United States opposed the proposal for another uncontrolled moratorium.

28. The Conference adjourned on 29 January 1962 sine die.

29. At the 1962 session of the ENDC, Brazil proposed the suspension of tests in the atmosphere, in outer space and under water, accompanied by a limited moratorium - for example, six months - pending an agreement on underground tests.

30. At the seventeenth session of the General Assembly, the Soviet Union reiterated its position that it would agree to a partial treaty on the understanding that underground tests should not be carried out while negotiations continued and until agreement was reached. The United Kingdom and the United States rejected any form of an uninspected moratorium.

31. On 6 November 1962, the Assembly adopted a non-aligned draft resolution as resolution 1762 A (XVII) by which the Assembly recommended that if, against all hope, the parties concerned do not reach agreement on the cessation of all tests by 1 January 1963, they should enter into an immediate agreement prohibiting nuclear-weapon tests in the atmosphere, in outer space and under water, accompanied by an interim arrangement suspending all underground tests.

32. At the Moscow talks on a limited test ban treaty in July 1963, the Soviet Union did not insist on its previous demand that a partial test-ban must be accompanied by a moratorium on underground testing. Agreement was reached on a text of a Treaty banning nuclear-weapon tests in the atmosphere, in outer space and under water.

33. At the ENDC in 1965, the United Arab Republic suggested that agreement be reached on a partial underground test ban covering events of seismic magnitude of 4.75 and above, coupled with a moratorium on underground testing below that magnitude.

34. At the twentieth session of the General Assembly, the Soviet Union reiterated its support for the United Arab Republic's proposal, made in the ENDC, that an underground ban should cover tests above a threshold of 4.75 seismic magnitude provided that there was a moratorium on tests below that threshold.

35. At the 1966 session of the ENDC, the United Arab Republic recalled its proposal in the ENDC, in 1965, for a treaty banning underground tests above the "threshold" of seismic magnitude 4.75 and a moratorium on tests below the "threshold". Burma urged consideration of a voluntary test suspension with verification by challenge.

36. On 17 August 1966, the eight non-aligned countries tabled a "Joint Memorandum on a Comprehensive Test Ban Treaty", 12/ in which they called on the nuclear Powers to discontinue nuclear-weapon tests pending conclusion of a comprehensive test-ban treaty.

37. In the discussion at the twenty-first session of the General Assembly, in 1966, the USSR reiterated its acceptance of the United Arab Republic's proposal for a "threshold ban" with an indefinite moratorium. A number of other countries favoured banning underground tests above a "threshold", but without a moratorium on tests below the suggested threshold. Others urged that the threshold should be progressively lowered as monitoring techniques improved.

38. On 5 December, the General Assembly adopted resolution 2163 (XXI), by which the General Assembly, among others, called upon all nuclear-weapon States to suspend nuclear-weapon tests in all environments. This call was reiterated in resolutions 2343 (XXII), 2455 (XXIII), 2604 B (XXIV), 2663 B (XXV), 2934 A (XXVII) and 3257 (XXIX).

3. Recent development in the 1970s

39. At the twenty-sixth session of the General Assembly in 1971, Saudi Arabia submitted a draft resolution by which the General Assembly would appeal to the nuclear Powers to desist from carrying out further nuclear tests of any kind. The General Assembly adopted the draft as resolution 2828 B (XXVI). The USSR voted in favour, France, the United Kingdom and the United States abstained. China voted against.

40. Another draft resolution was submitted by Australia, Austria, Belgium, Canada, Denmark, Ethiopia, Finland, Ghana, Ireland, Japan, Morocco, the Netherlands, Nigeria, Norway and Sweden, and subsequently joined by Iran. The draft resolution was adopted as resolution 2828 C (XXVI). France, the United Kingdom, the United States and the Soviet Union abstained and China voted against. The resolution urged that all States that had not yet done so adhere without further delay to the Treaty and meanwhile refrain from testing in the environments covered by the Treaty. This urging was reiterated in resolution 2934 A (XXVII).

41. The resolution also called upon all Governments that had been conducting nuclear-weapon tests, particularly those of parties to the Partial Test Ban Treaty, immediately to undertake unilateral or negotiated measures of restraint that would suspend nuclear-weapon testing or limit or reduce the size and number of nuclear-weapon tests, pending the early entry into force of a comprehensive ban on all nuclear-weapon tests in all environments by all States. This call was reiterated in resolution 2934 B (XXVII).

42. At the 1972 session of the CCD, Canada suggested a commitment by the United States and the USSR to reduce significantly the size and number of their nuclear-weapon tests, or alternatively, an agreed moratorium of a fixed duration. Any extension of the moratoria beyond the agreed duration would be conditional on the adherence of all nuclear-testing Powers to it or on their participation in substantive negotiations towards a comprehensive nuclear-test ban.

43. A draft resolution sponsored by Mexico and 14 other Latin American members, and along the general lines of resolution 2828 A (XXVI) sponsored by a similar group at the twenty-sixth session, was adopted as resolution 2934 C (XXVII). Albania, China, France and Portugal voted against. The USSR and other Eastern European countries, the United Kingdom and United States abstained. This resolution urged the Governments of nuclear-weapon States to bring to a halt all nuclear-weapon tests at the earliest possible date, and in any case not later than 5 August 1973, either through a permanent agreement or through unilateral or agreed moratoria. This urging was repeated in resolution 3078 A (XXVIII).

44. At the Review Conference of the Treaty on Non-Proliferation of Nuclear Weapons in 1975, Mexico, supported by a number of non-aligned States parties to the Treaty, submitted a draft resolution with a working paper containing a draft additional protocol to the Treaty regarding nuclear-weapon tests, 13/ which read as follows:

> "Article 1. They /the Depositary Governments of the Treaty/ undertake to decree the suspension of all their underground nuclear-weapon tests for a period of 10 years, as soon as the number of Parties to the Treaty reaches 100.
>
> "Article 2. They undertake also to extend by three years the moratorium contemplated in the preceding article, each time that five additional States become Parties to the Treaty.
>
> "Article 3. They undertake to transform the moratorium into a permanent cessation of all nuclear-weapon tests, through the conclusion of a multilateral treaty for that purpose, as soon as the other nuclear-weapon States indicate their willingness to become parties to said Treaty."

45. While no decision was taken at the Conference on the draft resolution 14/ and the working paper annexed to it, they were reproduced in full in Annex II of the Final Document of the Conference at the request of Mexico, on behalf of the Group of 77.

46. The inclusion of the draft resolution and the draft additional protocol into the final document of the Review Conference was noted in a preambular paragraph of

resolution 3466 (XXX) adopted at the thirtieth session of the General Assembly. The Assembly also noted in another preambular paragraph that the desire was expressed by a considerable number of delegations at the Conference that the nuclear-weapon States parties to the Treaty should enter into an agreement to halt all nuclear-weapon tests for a specified time, whereupon the terms of such an agreement would be reviewed in the light of the opportunity at that time to achieve a universal and permanent cessation of all nuclear-weapon tests. In an operative paragraph the Assembly called upon all nuclear-weapon States to bring to a halt all nuclear-weapon tests through an agreed suspension subject to review after a specified period, as an interim step towards the conclusion of a formal and comprehensive test-ban agreement. China voted against the resolution 3466 (XXX), and France, the Soviet Union, the United Kingdom and the United States abstained.

47. At the 1976 session of the CCD, Mexico reiterated 15/ the proposal of a moratorium indicated in the draft additional protocol to the Non-Proliferation Treaty mentioned above and in General Assembly resolution 3466 (XXX).

48. At its thirty-first session, the General Assembly adopted resolution 31/66 by which the Assembly called again upon all nuclear-weapon States to suspend the testing of nuclear weapons by agreement, subject to review after a specified period, as an interim step towards the conclusion of a formal and comprehensive test-ban agreement.

NOTES

1/ Official Records of the General Assembly, Thirteenth Session, Annexes, document A/3973.

2/ Ibid., document A/3985.

3/ Ibid., Fourteenth Session, Annexes, document A/4290, para. 6 (A/C.1/L.237/Rev.1).

4/ Ibid., para. 5 (A/C.1/L.236/Rev.1).

5/ Ibid., Fifteenth Session, Annexes, document A/4680, para. 13 (A/C.1/L.256).

6/ Ibid., para. 14 (A/C.1/L.258/Rev.1).

7/ Ibid., Plenary Meetings, 960th meeting.

8/ Soviet Embassy press release 190, GCDNWT, 1961, pp. 606-618.

9/ White House press release; GCDNWT, 1961, pp. 618-619.

10/ Ibid., Sixteenth Session, Annexes, agenda items 73 and 72, document A/C.1/L.283/Rev.2 and Add.1.

11/ Ibid., Plenary Meetings, 1047th meeting.

12/ Official Records of the Disarmament Commission, Supplement for 1966, document DC/228, annex 1, ENDC/177.

13/ NPT/CONF.35/1, annex II, p. 4.

14/ Ibid., p. 2.

15/ CCD/PV.688.

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PREPARATORY COMMITTEE FOR THE SPECIAL SESSION OF THE GENERAL ASSEMBLY DEVOTED TO DISARMAMENT

A SYNTHESIS OF THE ARGUMENTS ADDUCED FOR AND AGAINST EACH OF THE FOUR PROPOSALS FOR THE CREATION OF NUCLEAR-WEAPON-FREE ZONES THAT HAVE BEEN INCLUDED IN THE GENERAL ASSEMBLY'S AGENDA (AFRICA, SOUTH ASIA, THE MIDDLE EAST AND THE SOUTH PACIFIC) AND FOR AND AGAINST THE PROPOSAL FOR THE ESTABLISHMENT OF A ZONE OF PEACE IN THE INDIAN OCEAN, INCLUDING A SUBJECT AND COUNTRY INDEX

Working paper prepared by the Secretariat

CONTENTS

77-18979

I. INTRODUCTION

1. By resolution 31/189 of 21 December 1976, the General Assembly decided to convene a special session devoted to disarmament, to be held in New York in May/June 1978. It further decided to establish a Preparatory Committee for the Special Session of the General Assembly Devoted to Disarmament, composed of 54 Member States appointed by the President of the Assembly on the basis of equitable geographical distribution, with the mandate of examining all relevant questions relating to the special session, including its agenda, and to submit to the Assembly at its thirty-second session appropriate recommendations thereon.

2. The General Assembly also requested the Secretary-General to render the Preparatory Committee all necessary assistance, including the provision of essential background information, relevant documents and summary records.

3. At its 14th meeting on 20 May 1977, the Preparatory Committee requested the Secretariat to prepare certain working papers. Included among them was "A synthesis of the arguments adduced for and against each of the four proposals for the creation of nuclear-weapon-free zones that have been included in the General Assembly's agenda (Africa, South Asia, the Middle East and the South Pacific) and for and against the proposal for the establishment of a zone of peace in the Indian Ocean, including a subject index and a country index".

4. In response to this request of the Preparatory Committee, the Secretariat has prepared this working paper. It should be noted that, in expressing their views on the question of the establishment of the various nuclear-weapon-free zones and a zone of peace in the Indian Ocean, Member States have expressed their support for the concept of such zones, which are generally recognized as a valuable contribution to disarmament efforts undertaken at the United Nations. Different approaches or divergent opinions did emerge, however, in the discussion of specific proposals relating to these questions.

5. In order to fulfil the mandate assigned to it, as well as to reflect properly the arguments adduced by Member States in connexion with the various proposals submitted to the General Assembly, the Secretariat has included in this working paper mainly those views expressed during the general debate on disarmament items in the First Committee, when aspects of the creation of such zones have been examined in depth.

6. In many cases, delegations unable to support resolutions dealing with the establishment of the zones have made it clear that their reservations related to the wording or procedures contemplated thereto, while at the same or different occasions they reaffirmed their sympathy and understanding of the objectives of the initiative.

7. As consideration of the various proposals for the establishment of zones led to discussion of specific aspects or problems relating to each of them, Member States have addressed themselves to these questions and thus less attention has been given to the arguments for and against the creation of zones during the debates. Therefore, views expressed on such arguments became less frequent as the respective items were regularly included in the agenda of the General Assembly.

II. PROPOSAL FOR THE CREATION OF A NUCLEAR-WEAPON-FREE ZONE IN AFRICA

8. In 1961, fourteen African States submitted to the General Assembly a draft resolution on the denuclearization of Africa, which was adopted on 24 November of that year by 55 in favour, none against and 44 abstentions, as resolution 1652 (XVI). It reads as follows:

"The General Assembly,

"Recalling its resolutions 1378 (XIV) of 20 November 1959 on general and complete disarmament, 1379 (XIV) of 20 November 1959 on the question of French nuclear tests in the Sahara, 1576 (XV) of 20 December 1960 on the prevention of the wider dissemination of nuclear weapons, and 1577 (XV) and 1578 (XV) of 20 December 1960 on the suspension of nuclear and thermo-nuclear tests,

"Recalling further its resolution 1629 (XVI) of 27 October 1961, which declared that both concern for the future of mankind and the fundamental principles of international law impose a responsibility on all States concerning actions which might have harmful biological consequences for the existing and future generations of peoples of other States, by increasing the levels of radio-active fall-out,

"Concerned about the present rate of nuclear armament and the possible spread of nuclear weapons, as well as the resumption of nuclear tests in the continent of Africa which is being emancipated,

"Recognizing the need to prevent Africa from becoming involved in any competition associated with the ideological struggles between the Powers engaged in the arms race and, particularly, with nuclear weapons,

"Recognizing further that the task of economic and social development in the African States requires the uninterrupted attention of those States in order to allow them to fulfil their goals and to contribute fully to the maintenance of international peace and security,

"Calls upon Member States:

(a) To refrain from carrying out or continuing to carry out in Africa nuclear tests in any form;

(b) To refrain from using the territory, territorial waters or air space of Africa for testing, storing or transporting nuclear weapons;

(c) To consider and respect the continent of Africa as a denuclearized zone."

9. During the general debate, Brazil said that it would support the resolution, since the denuclearization of Africa would strengthen the cause of peace by removing at least one source of international friction.1/

1/ Official Records of the General Assembly, Sixteenth Session, First Committee, 1183rd meeting.

10. While introducing the pertinent draft resolution, Ghana said that its purpose was to ensure that Africa should be kept free of nuclear tests and nuclear weapons, and should be treated as a denuclearized neutral zone. There could be no difficulty in that, since Africa was an integral territorial unit, a continent in which, with the exception of France, no power had attempted to conduct nuclear tests. Ethiopia held that the adoption of the resolution would be an effective first step towards the ultimate prohibition by treaty of the use of nuclear weapons to settle disputes between nations. The Soviet Union stated that it was in favour of the establishment of nuclear-weapon-free zones in various parts of the world, including Africa. The establishment of such zones would reduce the danger of armed conflict, prevent the spread of nuclear weapons and help to create confidence among States. At the same time, it could provide useful experience at the regional level in the organization of control and inspection. Poland said that the resolution would give Africa some measure of security pending the achievement of general and complete disarmament, and would, in fact, represent a major step towards disarmament in a large geographical area.2/

11. For its part, Yugoslavia maintained that the denuclearization of Africa might encourage the creation of nuclear-weapon-free zones elsewhere. While appreciating the desire of the sponsors, the United Kingdom said that it had reservations about the manner in which they sought to isolate Africa from the threat of nuclear war. With regard to the appeal for Africa to be regarded as a denuclearized zone, it was not for the United Nations, or any group of States, to direct States to follow any particular policy. Moreover, there could be no guarantee of Africa's effective denuclearization in the absence of procedures for international verification. With regard to the question of halting nuclear tests, the only way to deal with this problem was to conclude an agreement halting tests everywhere under effective international control. Romania stated that a nuclear-weapon-free zone in Africa would help to reduce the risk of nuclear war, while Czechoslovakia said that the establishment of such a zone would help to strengthen peace not only in that continent but throughout the world, and would increase the security of the African countries. The resolution did not impose obligations on any State. It was merely an appeal, to which each Government could respond as it saw fit. Although in full sympathy with the motives of the sponsors, the United States feared that the initiative might interfere with its proposal for a programme of general disarmament. Moreover, the right of self-defence by whatever means might be appropriate was established in the United Nations Charter. If nuclear weapons could not be stored or transported in Africa, an African State attacked by a non-African State with nuclear weapons would be deprived of the right to defend itself by the use of such weapons. Also, the United States did not consider it appropriate for the United Nations to initiate recommendations to particular countries or areas for disarmament measures limited to only one region of the world, particularly by means of uncontrolled declarations. Once the African States had concluded appropriate regional agreements, Member States could properly be asked to co-operate in their implementation. Ivory Coast explained that it was unable to support the resolution, since it considered as a first step the conclusion of an international convention covering disarmament and military bases, as well as nuclear weapons and tests, and providing for international control. The General Assembly should then be asked to guarantee that convention.3/

2/ Ibid., 1189th meeting.

3/ Ibid., 1190th meeting.

12. Mali held that, since no African State possessed nuclear weapons, the argument that the African States would be unable to defend themselves against nuclear attack was meaningless. The resolution in no way conflicted with the procedure suggested by the Ivory Coast. Tunisia stated that the African States had no objection to an effective system of international control. In connexion with the argument advanced concerning the right of self-defence, it stated that the resolution was intended as a moral condemnation of nuclear weapons.4/

13. France fully appreciated the intentions of the sponsors, but it considered that the United Nations was not competent to lay down a special status for any region or continent, so long as the countries concerned had not agreed amongst themselves on a particular status. It was dangerous to seek to begin disarmament with measures which were not accompanied by effective international control. While fully appreciating the intentions of the sponsors, Argentina, Colombia, Spain, Uruguay and Venezuela abstained from voting in view that there was not unanimity among the African States on the resolution.5/

14. Mexico held that it fully understood the desire of the sponsors, but it felt that it was for each African State to decide for itself whether its territory, territorial waters and air space were or were not to be used in testing, storing or transporting nuclear weapons. The General Assembly could not impose restrictions on the use which those sovereign States made of their national territory. On behalf of the members of the Union Africaine et Malgache, Upper Volta expressed views similar to those of the Ivory Coast.6/

15. At the twentieth session of the General Assembly, twenty-eight African States submitted a draft resolution adopted on 3 December 1965 by 105 votes to none, with 3 abstentions as resolution 2033 (XX). It reads as follows:

"The General Assembly,

"Believing in the vital necessity of saving contemporary and future generations from the scourge of a nuclear war,

"Recalling its resolution 1652 (XVI) of 24 November 1961, which called upon all Member States to refrain from testing, storing or transporting nuclear weapons in Africa and to consider and respect the continent as a denuclearized zone,

"Recalling its resolution 2028 (XX) of 19 November 1965 on the non-proliferation of nuclear weapons,

"Observing that proposals for the establishment of denuclearized zones in various other areas of the world have also met with general approval,

"Convinced that the denuclearization of various areas of the world would help to achieve the desired goal of prohibiting the use of nuclear weapons,

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4/ Ibid., 1191st meeting.

5/ Ibid., 1193rd meeting.

6/ Ibid., 1194th meeting.

"Considering that the Assembly of Heads of State and Government of the Organization of African Unity, at its first regular session, held at Cairo from 17 to 21 July 1964, issued a solemn declaration on the denuclearization of Africa in which the Heads of State and Government announced their readiness to undertake, in an international treaty to be concluded under the auspices of the United Nations, not to manufacture or acquire control of nuclear weapons,

"Noting that this declaration on the denuclearization of Africa was endorsed by the Heads of State or Government of Non-Aligned Countries in the Declaration issued on 10 October 1964, at the close of their Second Conference, held at Cairo,

"Recognizing that the denuclearization of Africa would be a practical step towards the prevention of the further spread of nuclear weapons in the world and towards the achievement of general and complete disarmament and of the objectives of the United Nations,

"1. Reaffirms its call upon all States to respect the continent of Africa as a nuclear-free zone;

"2. Endorses the declaration on the denuclearization of Africa issued by the Heads of State and Government of African countries,

"3. Calls upon all States to respect and abide by the aforementioned declaration;

"4. Calls upon all States to refrain from the use, or the threat of use, of nuclear weapons on the African continent;

"5. Calls upon all States to refrain from testing, manufacturing, using or deploying nuclear weapons on the continent of Africa, and from acquiring such weapons or taking any action which would compel African States to take similar action;

"6. Urges those States possessing nuclear weapons and capability not to transfer nuclear weapons, scientific data or technological assistance to the national control of any State, either directly or indirectly, in any form which may be used to assist such States in the manufacture or use of nuclear weapons in Africa;

"7. Expresses the hope that the African States will initiate studies, as they deem appropriate, with a view to implementing the denuclearization of Africa, and take the necessary measures through the Organization of African Unity to achieve this end;

"8. Urges the African States to keep the United Nations informed of any further developments in this regard;

"9. Requests the Secretary-General to extend to the Organization of African Unity such facilities and assistance as may be requested in order to achieve the aims of the present resolution."

16. Nigeria said that it had always supported the creation of nuclear-weapon-free zones in various parts of the world, since it believed that that would be the first step towards limiting and eventually halting the spread of nuclear weapons. By deciding to denuclearize their continent, the African States were taking a most responsible step which would contribute immensely towards world peace and stability.7/

17. The United Republic of Tanzania said that man was devoting resources, energy and creative genius to developing a process which threatened the extinction of human life, and that the African nations wanted no part in that suicidal process. The African countries were anxious to remain non-aligned, and one way to ensure that was to prevent their continent from becoming a zone of conflict between the major nuclear powers, i.e. to make it a nuclear-weapon-free zone. There was nothing in the proposal that was aimed against non-African States; on the contrary, its adoption would give a lead to other continents and regions. The spread of nuclear-weapon-free zones would be a major advance towards general and complete disarmament and, indeed, towards international peace and security. Ethiopia said that it considered the question of the denuclearization of Africa as an aspect of the general problem of banning nuclear weapons. The proposal had the same objectives as the non-proliferation of nuclear weapons, since it sought to prevent States from acquiring such weapons, an argument also advanced by Senegal. Liberia held that the problems of economic and social development confronting Africa required the uninterrupted attention of the African States, without the additional burden entailed by the manufacture or acquisition of nuclear weapons. It was obvious that, for political, economic and strategic reasons, Africa should be considered a nuclear-weapon-free zone, and should not find itself in the paradoxical position of spending huge sums, far beyond its means. Nor did Africa wish to be drawn into the conflicts of the big powers by allowing their nuclear weapons on its territory. Peru said that, since the great Powers were unable to reach agreement on even the partial and gradual destruction of nuclear weapons, the efforts being made by the African countries to secure the denuclearization of their continent were to be welcomed. The proposal must be regarded as a part of the framework of principles on which United Nations legislation concerning nuclear questions should be based.8/

18. Ghana said that it was necessary to eliminate all foreign military bases in order to remove the threat of nuclear weapons being introduced or stored by a foreign Power on African soil; there was also the risk that a colonial Power in Africa which was allied to nuclear Powers might agree to store nuclear weapons in the territories under its domination, on the pretext that they were essential to the defence arrangements of that military alliance and the metropolitan Power concerned. The initiative was intended to insulate the African continent from the threat of a nuclear holocaust. The United Arab Republic said that the denuclearization of any region was as important to the world at large as it was to the countries and peoples of that region. It could not, therefore, be treated in isolation from the

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7/ Ibid., 1387th meeting.

8/ Ibid., 1388th meeting.

circumstances prevailing in the region or in the countries surrounding it. As far as Africa was concerned, moreover, denuclearization could not be carried out unless the following conditions were met: first, all foreign military bases should be dismantled; secondly, any programme for the denuclearization of Africa should take into account the foreign military bases on the islands surrounding Africa; thirdly, all racist régimes, whether in the heart of Africa or established on its borders, should be under obligation to cede authority to the original inhabitants or be brought under international guarantees which would not enable them to nullify an international agreement on the denuclearization of Africa; fourthly, the nuclear powers should undertake not to extend any assistance to any racist régime in or around Africa which might assist those régimes to manufacture nuclear weapons; lastly, the geographic definition of "Africa" in the context of denuclearization must be clearly established. Somalia held that the proposal made a definite contribution to the objectives of the proposed treaty on the non-proliferation of nuclear weapons. The prospects for keeping Africa and the surrounding islands a nuclear-weapon-free zone were improved by the fact that the continent was virtually free from the power struggle between the two major blocs.9/

19. Jamaica said that the proposal was welcomed because it approached the problem of the proliferation of nuclear weapons from a new angle. It was important to explore every means of isolating and restricting the use and deployment of nuclear weapons. The Soviet Union said that it had consistently advocated the establishment of nuclear-weapon-free zones in various parts of the world as an effective way of limiting the areas in which nuclear weapons could be stockpiled and used, and thereby reducing the threat of nuclear war and limiting the scope of the arms race. It fully supported the position of the African States and stressed that the creation of nuclear-weapon-free zones implied the elimination of foreign military bases which could be used for storing such weapons. Pakistan and Cyprus said that the denuclearization of Africa would lessen the threat of nuclear war and constitute a significant step towards general and complete disarmament. Libya held a similar view.10/

20. Romania supported the African States' proposals, for it was convinced that it would help to limit the sphere of operation of nuclear weapons and to strengthen peace and security in Africa and throughout the world. The United States held that it welcomed the initiative, for its objectives were in harmony with the United States policy of halting the proliferation of nuclear weapons. With regard to the arrangements to be made to achieve the denuclearization of Africa, it reserved its position until it could examine the provisions of the convention which would give legal effect to the Declaration of the African Heads of State and Government. The fact that the initiative was being taken by the States concerned was in line with one of the principles which should govern the establishment of denuclearized zones. The United States would examine the legal instruments also in the light of other principles, namely, that the zone should preferably include all States in the area, especially those whose failure to participate may render the agreement ineffective, that no State or group of States should derive military advantage from the creation

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9/ Ibid., 1389th meeting.

10/ Ibid., 1390th meeting.

of the zone; and that provision should be made for adequate verification. Mexico said that it supported with the greatest satisfaction the proposal on the denuclearization of Africa. It was a noble enterprise, analogous to the denuclearization of Latin America which had the same aim and the same motive: the vital necessity of saving present and future generations from the scourge of nuclear war. Denuclearization was the most effective way of preventing the proliferation of nuclear weapons, the supreme goal being general and complete disarmament and, more particularly, nuclear disarmament. While supporting the proposal, Yugoslavia said that it always attached particular importance to the denuclearization of various parts of the world, considering that to be one of the initial measures which should contribute to general and complete disarmament. Brazil supported the resolution and held that the first condition for establishing a nuclear-weapon-free zone was the political will freely expressed by all countries of a given geographical area. The second was the readiness of the nuclear powers to respect the status of denuclearization in all its aspects and consequences. The world's balance of power would gain, from the point of view of political stability, if Africa was denuclearized. Czechoslovakia said that it welcomed the proposal, since the creation of nuclear-weapon-free zones would reduce the danger of nuclear war. Under the Charter of the United Nations, Member States had an obligation to aid the African countries. The United Kingdom voted for the resolution, adding that it would wait the results of the studies mentioned in operative paragraph 7 and the text of the treaty or convention which would presumably result from those studies.11/

21. South Africa abstained from the vote, stating that, although in full agreement with its objectives, it could not endorse the role given to the Organization of African Unity.12/

22. New Zealand supported the resolution, but said that this did not mean endorsement of all its provisions. In this context, it maintained that the military and political circumstances prevailing in each area must be taken fully into account in evaluating the establishment of nuclear-weapon-free zones in certain regions of the world. Australia said that it supported the resolution, on the understanding that arrangements for nuclear-weapon-free zones should be made on the initiative of the countries of the region and with their unanimous support. They should not upset the strategic balance, including the balance of forces in the area, and include provision for verification and control.13/

23. Venezuela held that, in view of the unanimous agreement reached by the African States, it would support the resolution.14/

24. During the twenty-ninth session of the General Assembly, twenty-six African States submitted a draft resolution, which was unanimously adopted on 9 December 1974 as resolution 3261 E (XXIX). It reads as follows:

"The General Assembly,

"Determined to promote an agreement on general and complete disarmament, in pursuance of the objectives of the United

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11/ Ibid., 1391st meeting.

12/ Ibid.

13/ Ibid.

14/ Ibid., 1392nd meeting.

Nations, which would put an end to the armaments race and eliminate the incentive to the production, stockpiling and testing of all kinds of weapons, particularly nuclear weapons,

"Convinced that the proliferation of nuclear weapons would seriously enhance the danger of nuclear war,

"Believing that militarily denuclearized zones covering the territories of Member States would arrest the proliferation of nuclear weapons and contribute to the maintenance of peace and security in their respective regions and the world,

"Affirming the inalienable right of all the peoples of the United Nations to develop research, production and use of nuclear energy for peaceful purposes,

"Recalling its resolutions 1652 (XVI) of 24 November 1961 and 2033 (XX) of 3 December 1965, which called upon all States to consider and respect the continent of Africa, including the continental African States, Madagascar and other islands surrounding Africa, as a nuclear-free zone,

"Considering that the Assembly of Heads of State and Government of the Organization of African Unity, at its first ordinary session, held at Cairo from 17 to 21 July 1964, issued a solemn declaration on the denuclearization of Africa, in which the Heads of State and Government announced their readiness to undertake, in an international treaty to be concluded under the auspices of the United Nations, not to manufacture or acquire control of nuclear weapons,

"Noting that the aforementioned Declaration on the Denuclearization of Africa, adopted by the African Heads of State and Government, was endorsed by the Heads of State or Government of Non-Aligned Countries in the Declaration issued on 10 October 1964 at the close of their second conference, held at Cairo,

"1. Reaffirms its call upon all States to consider and respect the continent of Africa as a nuclear-free zone;

"2. Reiterates its call upon all States to respect and abide by the Declaration on the Denuclearization of Africa issued by the Assembly of Heads of State and Government of the Organization of African Unity;

"3. Reiterates further its call upon all States to refrain from testing, manufacturing, deploying, transporting, storing, using or threatening to use nuclear weapons on the African continent;

"4. Requests the Secretary-General to render all necessary assistance to the Organization of African Unity towards the realization of the aims and objectives of the present resolution;

"5. Decides to include in the provisional agenda of its thirtieth session an item entitled "Implementation of the Declaration on the Denuclearization of Africa."

25. While introducing the draft, Nigeria also stated that the purpose of the resolution was to reaffirm the vital necessity of saving the world from the scourge of nuclear war, to register opposition to the consequences of radio-active fall-out and to express concern about the possible spread of nuclear weapons. As regards other considerations relating to the submission of the draft, the delegation recalled that South Africa had nuclear capability and expressed the apprehension that this could be used to blackmail the independent African States so as to weaken their opposition at the United Nations and elsewhere to the policy of apartheid. With respect to the text of the resolution, it said that the idea of "transporting" in paragraph 3 reflected fear that nuclear weapons in transit across Africa might be dropped or even fall accidentally on the continent.15/

26. Canada stated that it was strongly sympathetic in principle to the concept of nuclear-weapon-free zones, where they were feasible and promote stability and when specific proposals for their creation were put forward by the countries of the region concerned. Accordingly, it expressed support for the resolution, on the understanding that it in no way sought to constrain recognized rights of passage in international waters. Similar interpretations were made by Greece and Italy. China voted for the resolution, but reserved its views on the questions of general and complete disarmament and non-proliferation of nuclear weapons referred to in the preamble. Three delegations abstained from voting the draft in the First Committee, explaining the reasons for their reservations. While sympathizing with the desires of the African States, the United Kingdom held that it had to abstain in order to retain its formal freedom of action in view that many details of the project would still have to be worked out. For its part, France explained that it had abstained since its Government could not accept, in matters of self-defence, any distinction between the different parts of its territory. The United States welcomed the initiative, but said that it felt compelled to abstain since it could not subscribe at that early stage of the development of the zone to the particular set of undertakings contained in operative paragraph 3.16/ After informal consultations which clarified the objectives and wording of the draft, the three delegations were able to vote in favour of it in the plenary.

27. At its thirtieth session in 1975, the General Assembly adopted unanimously resolution 3471 (XXX). The draft had been introduced by thirty-four African States. The text of the resolution reads as follows:

"The General Assembly,

"Convinced that nuclear-weapon-free zones provide the best and easiest means whereby non-nuclear-weapon States can, by their own initiative and effort, ensure the total absence of nuclear weapons from their territories and enhance their mutual security,

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15/ Official Records of the General Assembly, Twenty-ninth session, A/C.1/PV.2025.

16/ Ibid., A/C.1/PV.2026.

"Mindful of the fact that nuclear-weapon-free zones strengthen and promote the régime for the non-proliferation of nuclear weapons,

"Reaffirming the inalienable right of all States to develop research, production and use of nuclear energy for peaceful purposes,

"Recalling its resolutions 1652 (XVI) of 24 November 1961, 2033 (XX) of 3 December 1974, which called upon all States to consider and respect the continent of Africa, including the continental African States, Madagascar and other islands surrounding Africa, as a nuclear-weapon-free zone,

"Noting the solemn Declaration on the Denuclearization of Africa, adopted by the Assembly of Heads of State and Government of the Organization of African Unity at its first ordinary session, held at Cairo from 17 to 21 July 1964,

"Noting also that the aforementioned Declaration was endorsed by the Second Conference of Heads of State or Government of Non-Aligned Countries, held at Cairo from 5 to 10 October 1964,

"1. Agrees that implementation of the Declaration on the Denuclearization of Africa, adopted by the Assembly of Heads of State and Government of the Oganization of African Unity, will be a significant measure to prevent the proliferation of nuclear weapons in the world, conducive to general and complete disarmament, particularly nuclear disarmament;

"2. Reaffirms its call upon all States to respect and abide by the Declaration on the Denuclearization of Africa;

"3. Reaffirms further its call upon all States to consider and respect the continent of Africa, including the continental African States, Madagascar and other islands surrounding Africa, as a nuclear-weapon-free zone;

"4. Reiterates its call upon all States to refrain from testing, manufacturing, deploying, transporting, storing, using or threatening to use nuclear weapons on the African continent;

"5. Requests the Secretary-General to render all necessary assistance to the Organization of African Unity towards the realization of the solemn Declaration on the Denuclearization of Africa, in which the African Heads of State and Government announced their readiness to undertake, in an international treaty to be concluded under the auspices of the United Nations, not to manufacture or acquire control of nuclear weapons;

"6. Decides to include in the provisional agenda of its thirty-first session the item entitled "Implementation of the Declaration on the Denuclearization of Africa."

28. Practically no debate was held on the proposal. In introducing the draft, Nigeria reiterated that its purposes were the same as those mentioned when it introduced resolution 3261 E (XXIX) the previous year.17/

29. At the thirty-first session, in 1976, the General Assembly considered a draft resolution submitted by thirty-five African States. The draft was adopted without a vote as resolution 31/69, which reads as follows:

"The General Assembly,

"Recalling its resolutions 1652 (XVI) of 24 November 1961, 2033 (XX) of 3 December 1965, 3261 E (XXIX) of 9 December 1974 and 3471 (XXX) of 11 December 1975, in which it called upon all States to consider and respect the continent of Africa, including the continental African States, Madagascar and other islands surrounding Africa, as a nuclear-weapon-free zone,

"Recognizing that implementation of the Declaration on the Denuclearization of Africa adopted by the Assembly of Heads of State and Government of the Organization of African Unity in 1964 would contribute to the security of all the African States and to the goals of general and complete disarmament,

"Bearing in mind that the Assembly of Heads of State and Government of the Organization of African Unity at its thirteenth ordinary session, held at Port Louis from 2 to 6 July 1976, expressed grave concern over the continuing collaboration between certain States Members of the United Nations and the racist régime of South Africa, particularly in the military and nuclear fields, thereby enabling it to acquire nuclear-weapon capability,

"Concerned that further development of South Africa's military and nuclear-weapon potential would frustrate efforts to establish nuclear-weapon-free zones in Africa and elsewhere as an effective means for preventing the proliferation, both horizontal and vertical, of nuclear weapons and for contributing to the elimination of the danger of a nuclear holocaust,

"1. Reaffirms its call upon all States to respect and abide by the Declaration on the Denuclearization of Africa;

"2. Further reaffirms its call upon all States to consider and respect the continent of Africa, including the continental African States, Madagascar and other islands surrounding Africa, as a nuclear-weapon-free zone;

"3. Appeals to all States not to deliver to South Africa or place at its disposal any equipment or fissionable material or technology that will enable the racist régime of South Africa to acquire nuclear-weapon capability;

17/ Official Records of the General Assembly, Thirtieth Session, A/C.1/PV.2103.

"4. Requests the Secretary-General to render all necessary assistance to the Organization of African Unity towards the realization of its solemn Declaration on the Denuclearization of Africa, in which the African Heads of State and Government announced their readiness to undertake, in an international treaty to be concluded under the auspices of the United Nations, not to manufacture or acquire control of nuclear weapons;

"5. Decides to include in the provisional agenda of its thirty-second session the item entitled "Implementation of the Declaration on the Denuclearization of Africa."

30. While supporting action by the General Assembly on the item, Mauritius expressed its concern over the threat posed by the militarization and nuclear programme of South Africa to the independence of African States.18/

31. As in previous sessions of the General Assembly, Nigeria introduced the draft resolution. It explained that its preoccupation was the threat and danger which the atomic bomb in the wicked hands of apartheid South Africa posed to Africa and the world. It also stated that its immediate concern was over the continuing assistance which certain Powers were giving to South Africa to achieve its cruel nuclear ambitions.19/

32. The United Kingdom said that if there had been a vote, it would have voted in favour of the resolution, although it regretted that the text did not do more to encourage negotiations by the States of the region. It added that because of its nuclear non-proliferation policy and, in particular, its opposition to apartheid, its Government would not sanction the export to South Africa of any nuclear material, equipment or technology contributing to the development of a military nuclear capability. France also said that it would have voted in favour of the resolution if it had been put to a vote, and explained that the French Government had ensured the absolute impossibility for South Africa to progress towards obtaining military nuclear capacity because of the functioning of the Koberg power station. While joining the consensus without any reservations, the Federal Republic of Germany stated that it did not permit the export to South Africa of nuclear material, equipment or technology which might contribute to the development of a nuclear weapon capability by that country.20/

18/ Official Records of the General Assembly, Thirty-first Session, A/C.1/31/PV.29.

19/ Ibid., A/C.1/31/PV.48.

20/ Ibid., A/C.1/31/PV.50.

III. PROPOSAL FOR THE CREATION OF A NUCLEAR-WEAPON-FREE ZONE IN SOUTH ASIA

33. At the twenty-ninth session of the General Assembly in 1974, Pakistan requested the inclusion in the agenda of an item concerning the establishment of a nuclear-weapon-free zone in South Asia. During consideration of the item, India and Pakistan submitted two separate draft resolutions. The Indian draft was adopted as resolution 3265 A (XXIX) by a vote of 104 (including the Soviet Union) in favour, 1 against and 27 abstentions (including China, France, Pakistan, the United Kingdom and the United States). The Pakistani draft was also adopted as resolution 3265 B (XXIX) by a vote of 96 (including China) in favour, 2 against (Bhutan and India) and 36 abstentions (including France, the Soviet Union, the United Kingdom and the United States). The resolutions read as follows:

"A

"The General Assembly,

"Recalling its resolution 1378 (XIV) of 20 November 1959, which established the goal of general and complete disarmament under effective international control,

"Convinced that the highest priority should be accorded to measures in the field of nuclear disarmament,

"Recalling its resolutions 1652 (XVI) of 24 November 1961 entitled "Consideration of Africa as a denuclearized zone", 1911 (XVIII) of 27 November 1963 entitled "Denuclearization of Latin America", 2033 (XX) of 3 December 1965 entitled "Declaration on the denuclearization of Africa" and 2286 (XXII) of 5 December 1967 entitled "Treaty for the Prohibition of Nuclear Weapons in Latin America",

"Recognizing that conditions and procedures for the creation of such zones differ from region to region,

"Recognizing further that, in appropriate regions and by agreement among the States concerned, the creation of nuclear-weapon-free zones could promote the cause of general and complete disarmament under effective international control,

"Considers, therefore, that the initiative for the creation of a nuclear-weapon-free zone in the appropriate region of Asia should come from the States of the region concerned, taking into account its special features and geographical extent.

"B

"The General Assembly,

"Recognizing the right of States to harness nuclear energy for peaceful purposes and as an instrument of development and progress,

"Realizing, at the same time, the dangers of diversion to military purposes inherent in the development of nuclear energy,

"Recalling its resolution 2456 B (XXIII) of 20 December 1968 concerning the establishment of zones free from nuclear weapons,

"Expressing the conviction that the establishment of such zones in various regions of the world is one of the measures which can contribute most effectively to halting the proliferation of nuclear weapons and to promoting progress towards nuclear disarmament as a step towards general and complete disarmament under effective international control, with the ultimate goal of total destruction of all nuclear weapons and their means of delivery,

"Believing that the establishment of nuclear-weapon-free zones will strengthen the security of regional States against nuclear threat,

"Recalling the Antarctic Treaty of 1959, the Declaration on the Denuclearization of Africa adopted by the Assembly of Heads of State and Government of the Organization of African Unity in 1964 and the Declaration adopted by the Foreign Ministers of the Association of South East Asian Nations in 1971,

"Bearing in mind that the establishment of a nuclear-weapon-free zone would, inter alia, entail:

"(a) Commitments by the States concerned to use exclusively for peaceful purposes nuclear materials and facilities under their jurisdiction and to prevent the testing, use, manufacture, production, acquisition or storage of any nuclear weapons or nuclear launching devices,

"(b) An equitable and non-discriminatory system of verification and inspection to ensure that nuclear programmes are in conformity with the foregoing commitments,

"(c) Undertakings by nuclear-weapon States not to use or threaten to use nuclear weapons against the States of the region,

"Having considered the question of the establishment of a nuclear-weapon-free zone in South Asia without prejudice to the extension of the zone to include such other regions of Asia as may be practicable,

"Desirous of preventing such a zone or any wider area as contemplated in the preceding paragraph from becoming involved in a ruinous nuclear arms race,

"Considering that the Treaty for the Prohibition of Nuclear Weapons in Latin America could serve as a model to be emulated with advantage by other regions,

"1. Takes note of the affirmation by the States of the region not to acquire or manufacture nuclear weapons and to devote their nuclear programmes exclusively to the economic and social advancement of their peoples;

"2. Endorses, in principle, the concept of a nuclear-weapon-free zone in South Asia;

"3. Invites the States of the South Asian region and such other neighbouring non-nuclear-weapon States as may be interested to initiate, without delay, necessary consultations with a view to establishing a nuclear-weapon-free zone and urges them, in the interim, to refrain from any action contrary to the achievement of these objectives;

"4. Expresses the hope that all States, in particular the nuclear-weapon States, will lend their full co-operation for the effective realization of the aims of the present resolution;

"5. Requests the Secretary-General to convene a meeting for the purpose of the consultations envisaged in paragraph 3 above, to render such assistance as may be required for the purpose and to report on the subject to the General Assembly at its thirtieth session;

"6. Decides to include in the provisional agenda of its thirtieth session the item entitled "Declaration and establishment of a nuclear-free zone in South Asia."

34. During the debate in the First Committee, Pakistan stressed that there was no difference between a peaceful nuclear explosion and one that was conducted to develop a nuclear weapon, and that India's nuclear explosion of May 1974 might therefore have removed the restraint on nuclear proliferation. It underscored the responsibility of nuclear weapon Powers to give security assurances and guarantees to the non-nuclear weapon States, so that the latter would not feel obliged to join in the nuclear arms race on grounds of security.1/

35. India said that it had no intention to develop nuclear weapons and that it would use nuclear energy and technology, including underground use of nuclear explosive devices, exclusively for peaceful purposes. It also stated that South Asia could not be considered a distinct zone, as it was an integral part of the Asian and Pacific region, which was surrounded by nuclear weapon States or countries belonging to their alliances. As regards India's position with respect to nuclear-weapon-free zones, it held that it had supported such zones whenever it had been

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1/ Official Records of the General Assembly, Twenty-ninth Session, A/C.1/PV.2002 and 2020.

demonstrated that there was prior consultation and agreement among the States in the regions.2/

36. Bangladesh expressed that it believed that the denuclearization of regions, expecially in the developing world, would greatly assist in lessening international tension and consolidating international peace and security, but it felt that before a proposal was brought before the General Assembly the countries of the region should consult among themselves about the desirability of such an idea.3/ Similar views were held by Mauritius4/ and Bhutan.5/

37. Tunisia held that it supported every initiative intended to promote peace and security throughout the world and that, in this context, it also supported the Pakistani proposal to establish a nuclear-free zone in South Asia. It took note, too, of the reiterated statements of India regarding the peaceful uses of its atomic energy.6/

38. As the debate on the item continued, India stated that, in the past, it had supported nuclear-weapon-free zones in Latin America and Africa because conditions were suitable for the establishment of such zones in those areas, and because the countries in each area had agreed to join their common efforts. That, it maintained, was not the case in South Asia, where no prior consultations had taken place and no agreement had been reached in a matter bearing on the vital interests of each country in the area.7/

39. Pakistan, on the other hand, held that its draft resolution had gone as far as possible to accommodate India's legitimate preoccupations and concerns, since at that time it sought only endorsement of the principle of establishing a nuclear-weapon-free zone in South Asia.8/

40. The United States abstained on both resolutions, explaining that the establishment of nuclear-weapon-free zones required basic agreement on the goals and conditions for such a zone. It added that it did not believe that the two resolutions, which embodied quite differing approaches, would advance the objective of a nuclear-free zone in South Asia. The Soviet Union held that it supported the creation of nuclear-free zones in various parts of the world, as a step towards preventing regional proliferation of nuclear weapons and easing the threat of nuclear war, provided that measures were taken to transform the territory of the States concerned into a zone totally free from nuclear weapons. It also considered desirable that a decision by the General Assembly on the item should be preceeded by a common understanding on the part of the States which might participate on the

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2/ Ibid., A/C.1/PV.2002 and 2016.

3/ Ibid., A/C.1/PV.2011.

4/ Ibid., A/C.1/PV.2016.

5/ Ibid., A/C.1/PV.2024.

6/ Ibid., A/C.1/PV.2013.

7/ Ibid., A/C.1/PV.2016.

8/ Ibid., A/C.1/PV.2016, 2024.

establishment of such a zone, with regard to its geographical limits and the content of any future agreement. Consequently, it voted for the Indian draft resolution and abstained from voting the Pakistani draft. China abstained on the Indian draft and voted in favour of the Pakistani proposal, explaining that in its view the latter was just and reasonable. France, for its part, abstained from the vote on the two resolutions, maintaining that it believed that the first condition to establish a nuclear-free zone was that of full agreement among those States included in that zone.9/ Sweden also abstained in the voting of both resolutions, for similar reasons.10/

41. Japan voted in favour of both resolutions. In its opinion, they sought to promote a nuclear-free zone and met therefore with the approval of its delegation, which was concerned with the need to prevent nuclear proliferation. The United Kingdom abstained from voting both resolutions, since in its view they contained no reference to the Treaty on the Non-Proliferation of Nuclear Weapons and should define more precisely not only the geographical area of the proposed zone but also the method of verification. It also stated that arrangements for a nuclear-free zone should exclude the development of nuclear explosive technology in the area.11/

42. At the thirtieth session of the General Assembly, India and Pakistan again tabled separate draft resolutions which were adopted without a vote as resolutions 3476 A (XXX) and 3476 B (XXX) respectively. They read as follows:

"A

"The General Assembly,

"Recalling its resolution 3265 A (XXIX) of 9 December 1974, in which the General Assembly, while recognizing, inter alia, that the creation of nuclear-weapon-free zones could promote the cause of general and complete disarmament under effective international control, considered that the initiative for the creation of a nuclear-weapon-free zone in an appropriate region of Asia should come from the States of the region concerned, taking into account its special features and geographical extent,

"Noting with appreciation the comprehensive study of the question of nuclear-weapon-free zones in all its aspects, which has been prepared by the Ad Hoc Group of Qualified Governmental Experts under the auspices of the Conference of the Committee on Disarmament,

"Having considered the basic principle unanimously accepted by the experts that, wherever appropriate conditions for a

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9/ Ibid., A/C.1/PV.2024.

10/ Ibid., A/C.1/PV.2025.

11/ Ibid., A/C.1/PV.2025.

nuclear-weapon-free zone exist, the initiative for the creation of a nuclear-weapon-free zone should come from States within the region concerned, and participation must be voluntary,

"Decides to give due consideration to any proposal for the creation of a nuclear-weapon-free zone in an appropriate region of Asia, after it has been developed and matured among the interested States within the region concerned.

"B

"The General Assembly,

"Recalling its resolution 3265 B (XXIX) of 9 December 1974, in which it endorsed, in principle, the concept of a nuclear-weapon-free zone in South Asia,

"Noting the note by the Secretary-General,

"Further noting that, in the introduction to his report on the work of the Organization, the Secreatry-General has urged the interested countries of the different regions to consult together with a view to the establishment of additional nuclear-free zones,

"1. Urges the States of South Asia to continue their efforts to establish a nuclear-weapon-free zone in South Asia, as recommended by the General Assembly in resolution 3265 B (XXIX);

"2. Further urges those States to refrain from any action contrary to the objective of establishing a nuclear-weapon-free zone in South Asia;

"3. Decides to include in the provisional agenda of its thirty-first session an item entitled "Establishment of a nuclear-weapon-free zone in South Asia."

43. During the debate, India reiterated its position and added that South Asia was a subregion and an integral part of the region of Asia and the Pacific. The existence of nuclear weapons in the region of Asia and the Pacific and the presence of foreign military bases in the Indian Ocean complicated the security environment of that region, and made the situation inappropriate for the establishment of a nuclear-weapon-free zone in the subregion of South Asia. For a zone to be viable it should come into being as a result of the basic desire of States to ensure their security. The initiative should be the product of common security concern, common perception of the threats to security, and a common desire to help each other in meeting such threats. It was of the essence that participation in a zone was voluntary.12/

12/ Official Records of the General Assembly, Thirtieth Session, A/C.1/PV.2088 and 2102.

44. Pakistan said that its proposal expressed the unanimous will of the States of South Asia not to acquire or develop nuclear weapons. Agreement among all those States would be necessary before the zone was formally established, but there was no bar, in the meantime, to the Assembly's consideration of this question and encouragement of the proposal As regards the proximity of nuclear Powers to South Asia, the response of the States of the region should be to make arrangements whereby these States could obtain binding undertakings from the nuclear-weapon States not to introduce nuclear weapons into the region or to use or threaten to use these weapons against them.13/

45. After the adoption of the resolutions, China said that, had they been put to a vote, it would have voted in favour of the Pakistani text, and would have abstained on the Indian proposal. The United States explained that it would have abstained on both resolutions, for the reasons given the year before. It added that an important consideration in determining its attitude towards any particular zone arrangement was based on whether it effectively prohibited the indigenous development of any nuclear explosive capability for whatsoever purpose.14/

46. In 1976, at the thirty-first session of the General Assembly, only one draft resolution was submitted by Pakistan, being adopted as resolution 31/73 by 91 in favour (including China) 2 against (Bhutan and India) and 43 abstentions (including France, the Soviet Union, the United Kingdom and the United States). The resolution reads as follows:

"The General Assembly,

"Recalling its resolutions 3265 B (XXIX) of 9 December 1974 and 3476B(XXX) of 11 December 1975 concerning the establishment of a nuclear-weapon-free zone in South Asia,

"Reiterating its conviction that the establishment of nuclear-weapon-free zones in various regions of the world is one of the measures which can contribute most effectively to halting the proliferation of nuclear weapons and to promoting progress towards nuclear disarmament as a step towards general and complete disarmament under effective international control, with the ultimate goal of total destruction of all nuclear weapons and their means of delivery,

"Bearing in mind the comprehensive study prepared by the Ad Hoc Group of Qualified Governmental Experts for the Study of the Question of Nuclear-Weapon-Free Zones,

"Believing that the establishment of a nuclear-weapon-free zone in South Asia, as in other regions, will strengthen the security of the States of the region against nuclear threat or attack,

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13/ Ibid., A/C.1/PV.2102.

14/ Ibid., A/C.1/PV.2105.

"Noting the affirmation by the States of South Asia not to acquire or manufacture nuclear weapons and to devote their nuclear programmes exclusively to the economic and social advancement of their peoples,

"Recalling that in the above-mentioned resolutions the General Assembly had called upon the States of the South Asian region and such other neighbouring non-nuclear-weapon States as might be interested to initiate, without delay, necessary consultations with a view to establishing a nuclear-weapon-free zone and urged them, in the interim, to refrain from any action contrary to the achievement of the objectives of such a nuclear-weapon-free zone,

"Recalling that in resolution 3265 B (XXIX) the General Assembly had requested the Secretary-General to convene a meeting for the purpose of the above-mentioned consultations to render such assistance as might be required,

"1. Reaffirms its endorsement in principle of the concept of a nuclear-weapon-free zone in South Asia;

"2. Urges once again the States of South Asia and such other neighbouring non-nuclear-weapon States as may be interested to continue to make all possible efforts to establish a nuclear-weapon-free zone in South Asia and to refrain, in the meantime, from any action contrary to this objective;

"3. Requests the Secretary-General to render such assistance as may be required to promote the above efforts for the establishment of a nuclear-weapon-free zone in South Asia and to report on the subject to the General Assembly at its thirty-second session;

"4. Decides to include in the provisional agenda of its thirty-second session the item entitled "Establishment of a nuclear-weapon-free zone in South Asia."

47. While introducing the text of the resolution, Pakistan said that its proposal reflected the conviction that the non-nuclear weapon States should take it upon themselves to avert the nuclear threat at least in their own regions.15/

48. India recalled that its position had been explained in great detail at the previous sessions of the Assembly, adding that its most fundamental objection to the proposal was that it sought to establish a nuclear-weapon-free zone in an area which was not appropriate for the purpose. It also reiterated that the initiative for the creation of a zone should come from States within the region and that participation should be voluntary.16/

15/ Official Records of the General Assembly, Thirty-first Session, A/C.1/31/PV.42.

16/ Ibid., A/C.1/31/PV.45.

49. Hungary abstained from voting on the resolution, saying that any nuclear-weapon-free zone should be entirely free from nuclear weapons or other explosive devices and that the initiative for its creation should come from the States of the region concerned. It also held that South Asia could not be treated in isolation from other parts of Asia. France also abstained, explaining that it was not unfavourable to the establishment of a nuclear-weapon-free zone in South Asia. However, a fundamental element was missing, namely the agreement of the States which were to become part of the zone. Similar views were expressed by Sweden and Yugoslavia. In commenting on the resolution, Pakistan expressed its willingness to continue consultations with other States concerned and reiterated that its proposal had called for the reaffirmation of the endorsement in principle of the concept of a nuclear-weapon-free zone in Asia, and not for the immediate establishment of such a zone.17/

17/ Ibid., A/C.1/31/PV.45

IV. PROPOSAL FOR THE CREATION OF A NUCLEAR-WEAPON-FREE-ZONE IN THE MIDDLE EAST

50. At the twenty-ninth session of the General Assembly in 1974, Iran and subsequently Egypt requested the inclusion in the agenda of an item entitled "Establishment of a nuclear-weapon-free zone in the Middle East". The two countries submitted later a draft resolution which was adopted by 128 votes in favour (including China, France, the Soviet Union, the United Kingdom and the United States) none against and 2 abstentions (Israel and Burma) as resolution 3263 (XXIX). It reads as follows:

"The General Assembly,

"Having considered the question of the establishment of of a nuclear-weapon-free zone in the region of the Middle East,

"Desiring to contribute to the maintenance of international peace and security by bolstering and expanding the existing regional and global structures for theprohibition and/or prevention of the further spread of nuclear weapons,

"Realizing that the establishment of nuclear-weapon-free zones with an adequate system of safeguards could accelerate the process towards nuclear disarmament and the ultimate goal of general and complete disarmament under effective international control,

"Recalling the resolution adopted by the Council of the League of Arab States at its sixty-second session, held in Cairo from 1 to 4 September 1974, on this subject,

"Recalling the message sent by His Imperial Majesty the Shahanshah of Iran on 16 September 1974 on the establishment of a nuclear-weapon-free zone in the region of the Middle East,

"Considering that the establishment of nuclear-weapon-free zones, on the initiative of the States situated within each zone concerned, is one of the measures which can contribute most effectively to halting the proliferation of those instruments of mass destruction and to promoting progress towards nuclear disarmament, with the goal of total destruction of all nuclear weapons and their means of delivery.

"Mindful of the political conditions particular to the region of the Middle East and of the potential danger emanating therefrom, which would be further aggravated by the introduction of nuclear weapons in the area,

"Conscious, therefore, of the need to keep the countries of the region from becoming involved in a ruinous nuclear arms race,

"Recalling the Declaration on the Denuclearization of Africa issued by the Assembly of Heads of State and Government of the Organization of African Unity in July 1964,

"Noting that the establishment of a nuclear-weapon-free zone in the region of the Middle East would contribute effectively to the realization of aims enunciated in the Declaration on the Denuclearization of Africa,

"Recalling the notable achievement of the countries of Latin America in establishing a nuclear-free zone,

"Also recalling resolution B of the Conference of Non-Nuclear-Weapon States, held at Geneva from 29 August to 28 September 1968, in which the Conference recommended that non-nuclear-weapon States not comprised in the Latin American nuclear-free zone should study the possibility and desirability of establishing military denuclearization of their respective zones,

"Recalling the aims pursued by the Treaty on the Non-Proliferation of Nuclear Weapons, in particular the goal of preventing the further spread of nuclear weapons,

"Recalling its resolution 2373 (XXII) of 12 June 1968, in which it expressed the hope for the widest possible adherence to the Treaty on the Non-Proliferation of Nuclear Weapons by both nuclear-weapon and non-nuclear-weapon States,

"1. Commends the idea of the establishment of a nuclear-weapon-free zone in the region of the Middle East;

"2. Considers that, in order to advance the idea of a nuclear-weapon-free zone in the region of the Middle East, it is indispensable that all parties concerned in the area proclaim solemnly and immediately their intention to refrain, on a reciprocal basis, from producing, testing, obtaining, acquiring or in any other way possessing nuclear weapons;

"3. Calls upon the parties concerned in the area to accede to the Treaty on the Non-Proliferation of Nuclear Weapons;

"4. Expresses the hope that all States, in particular the nuclear-weapon States, will lend their full co-operation for the effective realization of the aims of the present resolution;

"5. Requests the Secretary-General to ascertain the views of the parties concerned with respect to the implementation of the present resolution, in particular with regard to its paragraphs 2 and 3, and to report to the Security Council at an early date and, subsequently, to the General Assembly at its thirtieth session;

"6. Decides to include in the provisional agenda of its thirtieth session the item entitled "Establishment of a nuclear-weapon-free zone in the region of the Middle East."

51. While referring to the inclusion of this and other items relating to the establishment of nuclear-weapon-free zones, Mexico said that non-nuclear States seemed to be prepared to resort to procedures similar to those which apply in the case of an epidemic: to seek gradually to broaden the zones of the world in which nuclear weapons are prohibited for all time, so that the territories of the nuclear Powers would constitute something like contaminated islands, subject to a special régime.1/

52. During the debate, Egypt suggested the following principles for consideration:
(1) The States of the region should refrain from producing, acquiring or possessing nuclear weapons;
(2) The nuclear-weapon States should refrain from introducing nuclear weapons into the area, or from using such weapons against any State of the region; and
(3) An effective international safeguard system should be established.2/

53. Iran recalled the dissemination of scientific knowledge in the field of nuclear energy and said that in view of the political and economic situation prevailing in the Middle East, the introduction of nuclear arms in that area could mean much more than simply a burdensome arms race, which in itself would be catastrophic.3/

54. Yemen held that as the dangers in the Middle East increased, it was the duty of the world and of the countries of the area to try to remedy the situation by banning the production of nuclear weapons in that part of the world, and also to ban their acquisition. If any country acquired these means of destruction, other countries, feeling they were threatened, would try in turn to acquire those weapons.4/

55. Jordan supported the proposal and stated that the Middle East was an area where the introduction of nuclear weapons would mean dreadful complications and the direct threat of sliding into nuclear confrontation. The proposal of denuclearization of the Middle East was therefore consistent with and expressive of the purposes of the Non-Proliferation Treaty. The States of the area should all sign and become members of the Non-Proliferation Treaty, in order to fulfil the most basic and essential requirement of the denuclearization of the area.5/

56. Qatar said that it supported the proposal because the creation of nuclear-weapon-free zones, in addition to contributing to the relaxation of tension, would also constitute steps forward in the area of comprehensive world disarmament. The Middle East could not be exposed to a nuclear arms race and Qatar had a natural

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1/ Official Records of the General Assembly, Twenty-ninth Session, Plenary Meetings, A/PV.2261.

2/ Ibid., Twenty-ninth Session, First Committee, A/C.1/PV.2001.

3/ Ibid., A/C.1/PV.2000.

4/ Ibid., A/C.1/PV.2003.

5/ Ibid., A/C.1/PV.2004.

and earnest desire for the stabilization of peace and security. Kuwait maintained that the Middle East was still enmeshed in a conflict of such proportions that it may engulf all its peoples in a horrible inferno. International endeavours designed to wipe out the causes of conflict in the area were essential to contain local passions. Attempts to introduce nuclear weapons into the area would amount to an ominous act of crass insensibility.6/

57. Somalia stressed the importance of the Middle East as a vital source of the world's energy requirements. The security of the area should be guaranteed, and it should be kept free of nuclear weapons of any kind and of any capacity for destruction. The United Arab Emirates held that the Middle East was suffering from the fears of lengthy wars and was in great need, more than any time before, of any steps that could be devised to remove the spectre of a nuclear war.7/

58. Tunisia said that the establishment of a nuclear-weapon-free zone in the Middle East would be a positive contribution, not only to peace in the region but also for the security of mankind as a whole.8/

59. Israel abstained in the vote of the resolution because, in its view, it did not provide for full and frank consultation between all States concerned, without which the proposal could not be realized.9/

60. The United States supported the resolution, but expressed doubts in connexion with the approach taken in operative paragraph 2, which in its opinion urged States in the region to undertake immediate commitments with regard to the zone, in advance of actual negotiations and the conclusion of an agreement. France also voted for the resolution, although it reiterated its reservations with respect to the Treaty on the Non-Proliferation of Nuclear Weapons. It also expressed its wish to see complete agreement among the States concerned. While supporting the resolution, the Soviet Union said that this did not mean agreement with the eleventh preambular paragraph on a nuclear-weapon-free zone in Latin America.10/

61. During the thirtieth session of the General Assembly in 1975, Egypt and Iran and subsequently Bahrain, Jordan, Kuwait and Tunisia submitted a draft resolution later adopted by 125 votes to none, with 2 abstentions (Israel and the United Republic of Cameroon). It reads as follows:

"The General Assembly,

"Recalling its resolution 3263 (XXIX) of 9 December 1974, in which it overwhelmingly commended the idea of the establishment of a nuclear-weapon-free zone in the region of the Middle East,

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6/ Ibid., A/C.1/PV.2006.

7/ Ibid., A/C.1/PV.2010.

8/ Ibid., A/C.1/PV.2013.

9/ Ibid., A/C.1/PV.2028.

10/ Ibid., A/C.1/PV.2028.

"Taking note of the reports of the Secretary-General to the Security Council and the General Assembly, and the replies contained therein, on the question of the establishment of a nuclear-weapon-free zone in the region of the Middle East,

"Recognizing, on the basis of the above mentioned reports, that the establishment of a nuclear-weapon-free zone in the Middle East enjoys wide support in the region,

"Mindful of the prevailing political situation in the region and of the potential danger emanating therefrom, which would be further aggravated by the introduction of nuclear weapons in the area,

"Conscious, therefore, of the need to keep the countries of the region from becoming involved in a ruinous nuclear arms race,

"Taking note of the comprehensive study of the question of nuclear-weapon-free zones in all its aspects, prepared by the Ad Hoc Group of Qualified Governmental Experts pursuant to General Assembly resolution 3261 F (XXIX) of 9 December 1974,

"Recalling its resolution 2373 (XXII) of 12 June 1968, in which it expressed the hope for the widest possible adherence to the Treaty on the Non-Proliferation of Nuclear Weapons by both nuclear-weapon and non-nuclear-weapon States,

"1. Expresses the opinion that the Member States with which the Secretary-General has consulted through his notes verbales of 19 March 1975 and 13 June 1975 pursuant to General Assembly resolution 3263 (XXIX) should exert efforts towards the realization of the objective of establishing a nuclear-weapon-free zone in the region of the Middle East;

"2. Urges all parties directly concerned to adhere to the Treaty on the Non-Proliferation of Nuclear WEapons as a means of promoting this objective;

"3. Recommends that the Member States referred to in paragraph 1 above, pending the establishment of the nuclear-weapon-free zone under an effective system of safeguards, should:

"(a) Proclaim solemnly and immediately their intention to refrain, on a reciprocal basis, from producing, acquiring or in any other way possessing nuclear weapons and nuclear explosive devices, and from permitting the stationing of nuclear weapons, in their territory or the territory under their control, by any third party;

"(b) Refrain, on a reciprocal basis, from any other action that would facilitate the acquisition, testing or use of such weapons, or would be in any other way detrimental to the objective of the establishment of a nuclear-weapon-free zone in the region under an effective system of safeguards;

"4. Recommends to the nuclear-weapon States to refrain from any action contrary to the purpose of the present resolution and the objective of establishing, in the region of the Middle East, a nuclear-weapon-free zone under an effective system of safeguards and to extend their co-operation to the States of the region in their efforts to promote this objective;

"5. Decides to include in the provisional agenda of its thirty-first session the item entitled "Establishment of a nuclear-weapon-free zone in the region of the Middle East."

62. During the debate, Egypt recalled that the resolution adopted the previous year called upon the parties concerned in the area to accede to the Non-Proliferation Treaty. It added that Egypt had signed the treaty in 1968 and was ready to ratify it the moment Israel acceded to it.11/

63. In introducing the text of the resolution, Iran said that in the political climate of the Middle East, the introduction of nuclear weapons not only could not be discounted but also would represent the most dangerous aspect of nuclear-weapon proliferation and would seriously complicate the prospects for peace and security in the region. Mere expression of support for the idea of a nuclear-weapon-free zone was not in itself sufficient to override the existing obstacles; nor could the advocacy of conventional means for the realization of the idea stand the test of credibility in the face of the particular climate in the region. Through actions which could be interpreted unequivocally as gestures of good faith, feelings of trust and confidence among the States of the region could be generated. Adhesion to the Treaty on the Non-Proliferation of Nuclear Weapons by the States directly concerned could produce such a beneficial result. By spelling out the urgent measures to be undertaken by the States of the region, the proposed text tried to prevent pre-emptive action that would defeat the purpose of the zone.12/

64. For its part, Israel reiterated its desire to consult and confer with the Governments of the countries concerned. It held that its Government had voted in favour of the Treaty on the Non-Proliferation of Nuclear Weapons and was continuing its examination of the Treaty's implications and that Israel had solemnly stated that it will not be the first to introduce nuclear weapons in the Middle East.13/

11/ Official Records of the General Assembly, Thirtieth session, A/C.1/PV.2094.

12/ Ibid., A/C.1/PV.2101.

13/ Ibid., A/C.1/PV.2103.

65. The United States explained that it had voted in favour of the resolution, although it questioned the approach of asking States to undertake commitments in advance of the negotiations of a zone arrangement.14/

66. During the thirty-first session of the General Assembly in 1976, Egypt, Iran and Kuwait submitted a draft resolution later co-sponsored by Bahrain, Jordan, Mauritania, Sudan and the United Arab Emirates. The draft was adopted as resolution 31/71 by a vote of 130 to none, with 1 abstention (Israel). It reads as follows:

"The General Assembly,

"Recalling its resolution 3263 (XXIX) of 9 December 1974, in which it overwhelmingly commended the idea of the establishment of a nuclear-weapon-free zone in the region of the Middle East,

"Recalling also its resolution 3474 (XXX) of 11 December 1975, in which it recognized that the establishment of a nuclear-weapon-free zone in the Middle East enjoys wide support in the region,

"Mindful of the prevailing political situation in the region and the potential danger emanating therefrom that would be further aggravated by the introduction of nuclear weapons in the area,

"Concerned that the lack of any appreciable progress in the direction of the establishment of a nuclear-weapon-free zone, in the present atmosphere in the region, will further complicate the situation,

"Convinced that progress towards the establishment of a nuclear-weapon-free zone in the Middle East will greatly enhance the cause of peace both in the region and in the world,

"Conscious of the particular nature of the problems involved and the complexities inherent in the situation in the Middle East, and the urgency of keeping the region free from involvement in a ruinous nuclear arms race,

"1. Expresses the need for further action to generate momentum towards realization of the establishment of a nuclear-weapon-free zone in the Middle East;

"2. Urges all parties directly concerned to adhere to the Treaty on the Non-Proliferation of Nuclear Weapons as a means of promoting this objective;

"3. Reiterates its recommendation that the Member States

14/ Ibid., A/C.1/PV.2106.

referred to in paragraph 2 above, pending the establishment of the nuclear-weapon-free zone under an effective system of safeguards, should:

"(a) Proclaim solemnly and immediately their intention to refrain, on a reciprocal basis, from producing, acquiring or in any other way possessing nuclear weapons and nuclear explosive devices, and from permitting the stationing of nuclear weapons in their territory or the territory under their control by any third party;

"(b) Refrain, on a reciprocal basis, from any other action that would facilitate the acquisition, testing or use of such weapons, or would be in any other way detrimental to the objective of the establishment of a nuclear-weapon-free zone in the region under an effective system of safeguards;

"(c) Agree to place all their nuclear activities under the International Atomic Energy Agency safeguards;

"4. Reaffirms the recommendations to the nuclear-weapon States to refrain from any action contrary to the purpose of the present resolution and the objective of establishing, in the region of the Middle East, a nuclear-weapon-free zone under an effective system of safeguards and to extend their co-operation to the States of the region in their efforts to promote this objective;

"5. Invites the Secretary-General to explore the possibilities of making progress towards the establishment of a nuclear-weapon-free zone in the area of the Middle East;

"6. Decides to include in the provisional agenda of its thirty-second session the item entitled "Establishment of a nuclear-weapon-free zone in the region of the Middle East."

67. During the debate, Egypt said that Israel was the only country in the area not to support previous resolutions, which called on the countries concerned to adhere to the Treaty on the Non-Proliferation of Nuclear Weapons. It recalled that Egypt had stated and continued to state that it was ready to ratify the Treaty the moment Israel declared its adherence to it.15/

68. Kuwait said that it would become a party to the Treaty on the Non-Proliferation of Nuclear Weapons, provided Israel also became a party to it. It also believed that accession to the Treaty by all States of the region was a prerequisite for establishing an effective nuclear-weapon-free zone.16/

15/ Official Records of the General Assembly, Thirty-first session, A/C.1/31/PV.32.

16/ Ibid., A/C.1/31/PV.26.

69. Iraq, for its part, felt that one way of achieving the goal of declaring the Middle East a nuclear-weapon-free zone would be through the adherence of all to the Non-Proliferation Treaty and the renunciation of the production, manufacture or acquisition of nuclear weapons.17/

70. In introducing the text of the resolution, Iran said that no one could entertain any doubt that the consequences of allowing nuclear weapons into the region would far transcend the peace and security of the immediate area under consideration.18/

71. Israel abstained from voting the resolution, indicating that negotiations between all the States of the region was an indispensable requirement for the establishment of a nuclear-weapon-free zone in the Middle East.19/

72. While voting in favour of the resolution, the United States reiterated the views expressed on the vote of previous resolutions. It also stated that its support for any nuclear-weapon-free zone was contingent upon its compatibility with criteria that the United States had frequently articulated in the past. Those criteria were that the initiative for the creation of the zone should come from the States in the region concerned; that all States whose participation was considered important should participate in the zone; that the zone arrangement should not disturb existing security arrangements; and that the zone should effectively prohibit its parties from developing any nuclear explosive device.20/

17/ Ibid., A/C.1/31/PV.35.

18/ Ibid., A/C.1/31/PV.41.

19/ Ibid., A/C.1/31/PV.45.

20/ Ibid., A/C.1/31/PV.45.

V. PROPOSAL FOR THE CREATION OF A NUCLEAR-WEAPON-FREE ZONE IN THE SOUTH PACIFIC

73. At the thirtieth session of the General Assembly, the item entitled "Establishment of a nuclear-weapon-free zone was included in the agenda at the request of Fiji and New Zealand. Both countries also initiated a draft resolution, later co-sponsored by Chile, Ecuador, Malaysia, Peru, Philippines and Singapore. The draft was adopted by the General Assembly by 110 votes (including China) to none with 20 abstentions (including France, the Soviet Union, the United Kingdom and the United States) as resolution 3477 (XXX). It reads as follows:

"The General Assembly,

"Conscious of the urgent need for agreement on measures to achieve the goal of general and complete disarmament, including nuclear disarmament, under effective international control,

"Convinced that the proliferation of nuclear weapons and the continuance of the nuclear arms race are among the greatest threats to world peace and the survival of mankind,

"Noting that article VII of the Treaty on the Non-Proliferation of Nuclear Weapons acknowledges the right of any group of States to conclude regional treaties in order to ensure the total absence of nuclear weapons in their respective territories,

"Noting further the declaration of the Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons that the establishment of internationally recognized nuclear-weapon-free zones, on the initiative and with the agreement of the directly concerned States of the zone, represents an effective means of curbing the spread of nuclear weapons and could contribute significantly to the security of those States,

"Endorsing the declaration of the Review Conference that the co-operation of the nuclear-weapon States is necessary for the maximum effectiveness of any treaty arrangements for establishing a nuclear-weapon-free zone,

"Recalling, in particular, the Declaration on the Denuclearization of Africa, adopted by the Assembly of Heads of State and Government of the Organization of African Unity at its first ordinary session, held at Cairo from 17 to 21 July 1964, and the notable progress achieved by the Latin American States towards the denuclearization of their region,

"Noting, in addition, that the Heads of Government of the independent or self-governing States members of the South Pacific Forum emphasized in their communiqué of 3 July 1975 the importance of keeping the South Pacific region free from the risk of nuclear contamination and of involvement in a nuclear conflict and commended the diea of establishing a nuclear-weapon-free zone in the South Pacific as a means of achieving that aim,

"1. Endorses the idea of the establishment of a nuclear-weapon-free zone in the South Pacific;

"2. Invites the countries concerned to carry forward consultations about ways and means of realizing this objective;

"3. Expresses the hope that all States, in particular the nuclear-weapon States, will co-operate fully in achieving the objectives of the present resolution;

"4. Requests the Secretary-General to render all necessary assistance to the States of the region in giving effect to the purpose of the present resolution."

74. In introducing the text of the draft resolution in the First Committee, New Zealand stated that every State in every region had the right to do what it could to free itself from the danger of nuclear conflict over which it could have no control. The principle that the initiative for the creation of a nuclear-weapon-free zone should come from States within the region concerned had been given effect in the case of the South Pacific. The Heads of Government of the South Pacific Forum had "emphasized the importance of keeping the region free from the risk of nuclear contamination and of involvement in a nuclear conflict and commended the idea of establishing a nuclear-free zone in the South Pacific as a means of achieving that aim". As other regions had done, the South Pacific countries had considered that the first step towards the establishment of a zone in their area was to secure the endorsement of the concept in principle by the United Nations. The co-sponsors had conceived their initiative as being complementary to the Non-Proliferation Treaty, by which almost every member of the South Pacific Forum was bound.1/

75. Fiji held similar views, and added that it was not the intention of its Government to deprive any State, against its will, of its right to free and unimpeded passage of the high seas or the right of innocent passage in other waters. However, it vigorously opposed any emplacement or testing of nuclear weapons within territories in the South Pacific region.2/

76. Singapore said that the establishment of a nuclear-weapon-free zone in the South Pacific could make a positive contribution to the peace and security of the region. The establishment of nuclear-weapon-free zones could be a very effective way of promoting and strengthening the Non-Proliferation Treaty.3/

77. While understanding the motives of the co-sponsors, the Soviet Union abstained in the vote of the resolution, since in its view operative paragraph 1 allowed for the possibility of expanding the zone to the high seas, which could then lead to attempts to restrict freedom of navigation in the open seas. Mexico supported the resolution, stressing that the establishment of nuclear-weapon-free zones was an

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1/ Official Records of the General Assembly, Thirtieth session, A/C.1/PV.2074.

2/ Ibid., A/C.1/PV.2085.

3/ Ibid., A/C.1/PV.2098.

effective means to make progress towards general and complete disarmament via nuclear disarmament. It also stated that the resolution noted article VII of the Treaty on the Non-Proliferation of Nuclear Weapons, which acknowledged the right of any group of States to conclude a treaty to assure the total absence of nuclear weapons in their respective territories, and held that one of the best ways of making the treaty attractive would be to give proof that all States, particularly the nuclear-weapon States, were prepared to comply with the commitments entered into under that Treaty. Japan also voted for the resolution, on the understanding that consultations would be held about ways and means of realizing its objective. Its delegation also said that, in its view, a nuclear-weapon-free zone should be created in accordance with the established principles of international law, including freedom of navigation on the high seas, the principles of the United Nations Charter and fundamental principles guiding mutual relations of States. Also, a nuclear-weapon-free zone should contribute to the strengthening of regional international security and be compatible with the objective of strengthening international security on a global scale with peace-keeping mechanisms.4/

80. The United Kingdom abstained on the resolution, explaining that its Government had consistently opposed the idea of maritime zones covering large areas of the high seas. A maritime zone would interfere with generally accepted principles of freedom of navigation. Similar views were expressed by the Federal Republic of Germany and Italy. The United States also abstained, recalling that the proponents intended to seek extension of the zone eventually to include areas of the high seas. It, therefore, could not endorse a proposal that contemplated restrictions on internationally recognized rights of navigation and over flight of maritime areas, including the rights of innocent passage through territorial seas. France explained that it had abstained from voting the resolution, in view that the exact territorial area of the proposed zone was not clearly stated. In addition, the resolution did not define what rules would be proposed by the countries concerned with respect to the open seas and the international straits.5/

4/ Ibid., A/C.1/PV.2100.

5/ Ibid., A/C.1/PV.2100.

VI. PROPOSAL FOR THE ESTABLISHMENT OF A ZONE OF PEACE IN THE INDIAN OCEAN

81. At the twenty-sixth session of the General Assembly in 1971, the item "Declaration of the Indian Ocean as a Zone of Peace" was included in the agenda at the request of Ceylon, later joined by the United Republic of Tanzania. A draft resolution was subbmitted to the Assembly by thirteen countries and adopted by 61 votes (including China) to none with 55 abstentions (including France, the Soviet Union, the United Kingdom and the United States) as resolution 2832 (XXVI). It reads as follows:

"The General Assembly,

"Conscious of the determination of the peoples of the littoral and hinterland States of the Indian Ocean to preserve their independence, sovereignty and territorial integrity, and to resolve their political, economic and social problems under conditions of peace and tranquility,

"Recalling the Declaration of the Third Conference of Heads of State or Government of Non-Aligned Countries, held at Lusaka from 8 to 10 September 1970, calling upon all States to consider and respect the Indian Ocean as a zone of peace from which great Power rivalries and competition as well as bases conceived in the context of such rivalries and competition should be excluded, and declaring that the area should also be free of nuclear weapons,

"Convinced of the desirability of ensuring the maintenance of such conditions in the Indian Ocean area by means other than military alliances, as such alliances entail financial and other obligations that call for the diversion of the limited resources of the States of the area from the more compelling and productive task of economic and social reconstruction and could further involve them in the rivalries of power blocs in a manner prejudicial to their independence and freedom of action, thereby increasing international tensions,

"Concerned at recent developments that portend the extensions of the arms race into the Indian Ocean area, thereby posing a serious threat to the maintenance of such conditions in the area,

"Convinced that the establishment of a zone of peace in the Indian Ocean would contribute towards arresting such developments, relaxing international tensions and strengthening international peace and security,

"Convinced further that the establishment of a zone of peace in an extensive geographical area in one region could have a beneficial influence on the establishment of permanent universal peace based on equal rights and justice for all, in accordance with the purposes and principles of the Charter of the United Nations,

"1. Solemnly declares that the Indian Ocean, within limits to be determined, together with the air space above and the ocean floor subjacent thereto, is hereby designated for all time as a zone of peace;

"2. Calls upon the great Powers, in conformity with this Declaration, to enter into immediate consultations with the littoral States of the Indian Ocean with a view to:

(a) Halting the further escalation and expansion of their military presence in the Indian Ocean;

(b) Eliminating from the Indian Ocean all bases, military installations and logistical supply facilities, the disposition of nuclear weapons and weapons of mass destruction and any manifestation of great Power military presence in the Indian Ocean conceived in the context of great Power rivalry;

"3. Calls upon the littoral and hinterland States of the Indian Ocean, the permanent members of the Security Council and other major maritime users of the Indian Ocean, in pursuit of the objective of establishing a system of universal collective security without military alliances and strengthening international security through regional and other co-operation, to enter into consultations with a view to the implementation of this Declaration and such action as may be necessary to ensure that:

(a) Warships and military aircraft may not use the Indian Ocean for any threat or use of force against the sovereignty, territorial integrity and independence of any littoral or hinterland State of the Indian Ocean in contravention of the purposes and principles of the Charter of the United Nations;

(b) Subject to the foregoing and to the norms and principles of international law, the right to free and unimpeded use of the zone by the vessels of all nations is unaffected;

(c) Appropriate arrangements are made to give effect to any international agreement that may ultimately be reached for the maintenance of the Indian Ocean as a zone of peace;

"4. Requests the Secretary-General to report to the General Assembly at its twenty-seventh session on the progress that has been made with regard to the implementation of this Declaration;

"5. Decides to include in the provisional agenda of its twenty-seventh session an item entitled "Declaration of the Indian Ocean as a zone of peace".

82. Yugoslavia said that it had great understanding for Ceylon's efforts to save the Indian Ocean from becoming an area of confrontation of foreign powers. The adoption of the proposal would be of vital interest to countries of the region and also to peace and security in the world. 1/

1/ Official Records of the General Assembly, Twenty-Sixth Session, First Committee, 1833rd meeting.

83. Ceylon held that peace could not be established merely by outlawing nuclear weapons from a region. When conditions permitted, as in the Indian Ocean, it was important to outlaw conventional weapons as well and thus hasten the advance towards general and complete disarmament. It also stated that the proposal would, by the common consent of the littoral States, create the conditions in which great Power rivalries would be excluded from the area and ultimately enable the elimination of all military bases in the region. 2/

84. Kenya supported the Declaration of the Indian Ocean as a zone of peace, as it would be a step to forestall the possibility of a cold war confrontation and a practical development towards both disarmament and nuclear non-proliferation. Afghanistan expressed appreciation in principle for the initiative, believing that if such zones could be recognized in different regions, this would contribute to the strengthening of world peace and security. The United Republic of Tanzania said that no great Powers should make the area the scene of their confrontation and recalled that the concept of zones of peace had long ago been proposed as a means of saving selected areas of certain regions from the tragedy of nuclear war. 3/

85. While sharing the legitimate concern of the sponsors, France held that it was in the interest of the international community that certain essential principles remain outside all decisions of a specific nature, such as the principle relating to the law of the sea, especially since this subject was to be considered on a general level. 4/

86. The Soviet Union said that the creation of a zone of peace in the Indian Ocean should provide for actual steps to limit the arms race and, above all, for the dismantling of existing foreign military bases in the region. The declaration should not lead to the undermining or weakening of the existing generally recognized principles of international law on the freedom of the high seas. It added that the proposal should obtain the agreement of the parties concerned before the General Assembly reached a decision on it. 5/

87. While sharing the desires of the sponsors that the Indian Ocean should be an area of peace, the United Kingdom said that the resolution did more than request consultations; it also enumerated specific measures which would pre-determine the outcome of the proposed consultations. The United Kingdom had military facilities in the Indian Ocean which did not threaten any littoral States, and could not agree to proposals which prevented it from fulfilling its legitimate responsibilities and commitments in the region. 6/

88. The United States said that it had a number of difficulties with the language of the declaration, particularly with regard to such principles as freedom of navigation on the high seas, and rejected the view that a group of States in a certain region could establish a legal regime for the high seas in the region. New Zealand explained that its absentention was due to the fact that the resolution did not have the support either of the great Powers concerned or of all littoral

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2/ Ibid., 1834th meeting.

3/ Ibid., 1836th meeting.

4/ Ibid., 1838th meeting.

5/ Ibid., 1841st meeting.

6/ Ibid., 1848th meeting.

States. Japan said that it had voted in favour of the resolution because of sympathy with the aspirations of the littoral States to maintain and strengthen peace in their area. However, it held that the declaration would need further elaboration. 7/

89. During the twenty-seventh session of the General Assembly, 29 countries submitted a draft resolution on the basis of which resolution 2992 (XXVII) was adopted by 95 votes (including China) to none, with 33 abstentions (France, the Soviet Union, the United Kingdom and the United States). It reads as follows:

"The General Assembly,

"Recalling its resolution 2832 (XXVI) of 16 December 1971 entitled "Declaration of the Indian Ocean as a zone of peace",

"Noting the report of the Secretary-General submitted in accordance with paragraph 4 of that resolution, in which he was requested to report to the General Assembly at its twenty-seventh session on the progress made with regard to the implementation of the Declaration,

"Noting further that the consultations envisaged in paragraphs 2 and 3 of that resolution have not taken place,

"Convinced that action in furtherance of the objectives of the Declaration would be a substantial contribution to the strengthening of international peace and security,

"Noting that, in the Georgetown Declaration of 12 August 1972, the Conference of Foreign Ministers of Non-Aligned Countries took note with satisfaction of the adoption by the General Assembly at its twenty-sixth session of the Declaration of the Indian Ocean as a zone of peace and agreed that further steps should be taken at the Assembly's twenty-seventh session towards implementation of the Declaration,

"1. Calls upon the littoral and hinterland States of the Indian Ocean, the permanent members of the Security Council and other major maritime users of the Indian Ocean to support the concept that the Indian Ocean should be a zone of peace;

"2. Decides to establish an Ad Hoc Committee on the Indian Ocean, consisting of no more than fifteen members, to study the implications of the proposal, with special reference to the practical measures that may be taken in furtherance of the objectives of General Assembly resolution 2832 (XXVI), having due regard to the security interests of the littoral and hinterland States of the Indian Ocean and the interests of any other State consistent with the purposes and principles of the Charter of the United Nations, and to report to the General Assembly at its twenty-eighth session;

"3. Decides further that the Ad Hoc Committee shall consist of the following States: Australia, China, India, Indonesia, Iran, Iraq, Japan, Madagascar, Malaysia, Mauritius, Pakistan, Sri Lanka, United Republic of Tanzania, Yemen and Zambia;

7/ Ibid., 1849th meeting

"4. Urges all the States concerned to extend their co-operation to the Ad Hoc Committee in the discharge of its functions;

"5. Requests the Secretary-General to render all necessary assistance to the Ad Hoc Committee;

"6. Decides to include in the provisional agenda of its twenty-eighth session the item entitled "Declaration of the Indian Ocean as a zone of peace"."

90. During the debate, which was not particularly active, Sri Lanka said that existing circumstances in the Indian Ocean, as distinct from other oceans of the world, were specially conducive for considering the area as a zone of peace; the countries of the region needed conditions of peace and tranquility in which to transform and modernize their economies and societies. It added that immediate action was considered necessary to arrest and reverse certain trends which had lately become manifest and which, if allowed to continue, would render the progressive militarization of the Indian Ocean unavoidable. 8/

91. The United States abstained, explaining that the reasons for abstaining on the previous year remained valid and applied as well to the resolution. The United Kingdom expressed a similar view. France held that the basic principles of international law could not be modified even in a limited geographical region by any resolution of the United Nations even though, as in this case, it was inspired by peaceful and laudable intentions. 9/

92. Somalia supported the resolution, since in its view the Declaration on the Indian Ocean as a zone of peace was a major contribution to the strengthening of international peace and security, as well as a tangible expression of the principle of regional cooperation. While sharing the hope of the sponsors that the Indian Ocean should continue to be a zone of peace, Sweden explained that it had to abstain in view that the consultations envisaged in the previous year's resolution had not taken place. 10/

93. The Soviet Union declared its readiness to settle, along with other interested States and on an equal footing, the question of declaring the Indian Ocean as a zone of peace, but held that it could not support the resolution because it was not fully consistent with the elimination of all foreign military bases in the area, and with universally recognized rules of international law, particularly the principle of freedom of navigation. 11/

94. In 1973, at the twenty-eighth session of the General Assembly, sixteen countries submitted a draft resolution, which was adopted as resolution 3080 (XXVIII) by 95 votes (including China) to none, with 35 abstentions (including France, the Soviet Union, the United Kingdom and the United States). It reads as follows:

"The General Assembly,

"Recalling its resolution 2832 (XXVI) of 16 December 1971, entitled "Declaration of the Indian Ocean as a zone of peace",

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8/ Official Records of the General Assembly, Twenty-Seventh Session, First Committee, A/C.1/PV.1904

9/ Ibid., A/C.1/PV.1910

10/ Ibid., A/C.1/PV.1911

11/ Ibid.

"Reaffirming its conviction that action in furtherance of the objectives of the Declaration would be a substantial contribution to the strengthening of international peace and security,

"Noting the report of the Ad Hoc Committee on the Indian Ocean established by General Assembly resolution 2992 (XXVII) of 15 December 1972 to study the implications of the proposal, with special reference to the practical measures that may be taken in furtherance of the objectives of Assembly resolution 2832 (XXVI), having due regard to the security interests of the littoral and hinterland States of the Indian Ocean and the interests of any other State consistent with the purposes and principles of the Charter of the United Nations,

"Noting with satisfaction the progress made by the Ad Hoc Committee in fulfilling its mandate,

"1. Urges all States to accept the principles and objectives contained in General Assembly resolution 2832 (XXVI), entitled "Declaration of the Indian Ocean as a zone of peace", as a constructive contribution to the strengthening of regional and international security;

"2. Requests the Ad Hoc Committee on the Indian Ocean to continue its work, to carry out consultations in accordance with its mandate and to report with recommendations to the General Assembly at its twenty-ninth session;

"3. Urges all States, especially the major Powers, to extend their co-operation to the Ad Hoc Committee in the discharge of its functions;

"4. Requests the Secretary-General to continue to render all necessary assistance to the Ad Hoc Committee;

"5. Decides that the Ad Hoc Committee shall be provided with summary records of its proceedings;

"6. Requests the Secretary-General to prepare a factual statement of the great Powers' military presence in all its aspects, in the Indian Ocean, with special reference to their naval deployments, conceived in the context of great Power rivalry;

"7. Recommends that the statement should be based on available material and prepared with the assistance of qualified experts and competent bodies selected by the Secretary-General;

"8. Requests that the statement be transmitted to the Ad Hoc Committee at an early date, if possible by 31 March 1974;

"9. Decides to include in the provisional agenda of its twenty-ninth session an item entitled "Implementation of the Declaration of the Indian Ocean as a Zone of Peace"."

95. The debate in the First Committee concentrated mainly on various aspects of the implementation of the Declaration, and only a small number of delegations advanced arguments in connexion with the zone of peace.

96. Japan recalled the aspirations of the nations of the Indian Ocean region to keep themselves out of the great Power rivalries, to create in the region conditions of peace and tranquility, under which they could devote themselves to the constructive task of developing their own societies. 12/

97. The Soviet Union reiterated the reservations expressed in connexion with the previous year's resolution. The United States, for its part, said that the resolution embodied a number of concepts and premises that it had originally found unacceptable. 13/

98. Sweden voted this time in favour, since in its view the resolution enjoyed the support of the countries in the region. 14/

99. Italy abstained, explaining that certain aspects of the Declaration of the Indian Ocean as a zone of peace might lead to misinterpretation, particularly in connexion with the freedom of the high seas. France said that it could not support the resolution, in view of its attachment to that principle. 15/

100. At the twenty-ninth session of the General Assembly, Sri Lanka introduced in the First Committee the report of the Ad Hoc Committee on the Indian Ocean and the draft resolution annexed to it. The draft was adopted by the Assembly as resolution 3259 A (XXIX) by 103 votes (including China) to none, with 26 abstentions (including France, the Soviet Union, the United Kingdom and the United States). It reads as follows:

"The General Assembly,

"Recalling the Declaration of the Indian Ocean as a Zone of Peace, contained in resolution 2832 (XXVI) of 16 December 1971, and recalling also General Assembly resolutions 2992 (XXVII) of 15 December 1972 and 3080 (XXVIII) of 6 December 1973,

"Firmly convinced that further and continuous efforts are required to fulfil the objectives of the Declaration, and thus to contribute to the strengthening of regional and international peace and security,

"Noting the report of the Ad Hoc Committee on the Indian Ocean,

"Further noting the factual statement of the great Powers' military presence in all its aspects, in the Indian Ocean, with special reference to their naval deployments, conceived in the context of great Power rivalry, prepared by the Secretary-General with the assistance of qualified experts pursuant to General Assembly resolution 3080 (XXVIII),

"Deeply concerned that the competitive expansion of the military presence of the great Powers in the Indian Ocean would constitute a serious intensification of the arms race, leading to an increase of tension in the area,

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12/ Official Records of the General Assembly, Twenty-Eighth Session, First Committee, A/C.1/PV.1956

13/ Ibid., A/C.1/PV.1969.

14/ Ibid.

15/ Ibid.

"Considering that the creation of a zone of peace in the Indian Ocean requires:

(a) The elimination of all manifestations of great Power military presence in the region, conceived in the context of great Power rivalry,

(b) Co-operation among the regional States to ensure conditions of security within the region as envisaged in the Declaration,

"Further believing that for the realization of the objective of the Declaration it is necessary that the great Powers enter into immediate consultations with the States concerned with a view to adopting positive measures for the elimination of all foreign bases and of all manifestations of great Power military presence in the region, conceived in the context of great Power rivalry,

"1. Urges the littoral and hinterland States of the Indian Ocean, the permanent members of the Security Council and other major maritime users of the Indian Ocean to give tangible support to the establishment and preservation of the Indian Ocean as a zone of peace;

"2. Calls upon the great Powers to refrain from increasing and strengthening their military presence in the region of the Indian Ocean as an essential first step towards the relaxation of tension and the promotion of peace and security in the area;

"3. Endorses the recommendations, concerning the future work of the Ad Hoc Committee on the Indian Ocean, as contained in paragraph 35 of the report of the Committee;

"4. Requests the littoral and hinterland States of the Indian Ocean to enter, as soon as possible, into consultations with a view to convening a conference on the Indian Ocean;

"5. Invites all States, especially the great Powers, to co-operate in a practical manner with the Ad Hoc Committee in the discharge of its functions;

"6. Expresses its thanks to the Secretary-General for his efforts in the preparation of the factual statement of the great Powers' military presence in the Indian Ocean;

"7. Requests the Ad Hoc Committee to continue its work and consultations in accordance with its mandate and to report to the General Assembly at its thirtieth session;

"8. Requests the Secretary-General to continue to render all necessary assistance to the Ad Hoc Committee."

101. Kuwait said it was keenly interested in ensuring conditions of security within the region. In its view, among the means to achieve this end would be a commitment by the nuclear powers not to deploy nuclear weapons in the area, the elimination from the area of all foreign military bases and a ban on the establishment of new bases or the enlargement of existing ones. 16/

16/ Official Records of the General Assembly, Twenty-ninth Session, First Committee, A/C.1/PV.2002.

102. Yemen recalled that the arms race that developed during recent years in the region and the arrival of international competition had induced the United Nations to declare the Indian Oceana zone of peace. 17/

103. Australia said it would not wish to see an escalation of great Power military rivalry in the Indian Ocean. It urged the major Powers to limit their naval deployments and military presence there in a spirit of mutual restraint and assured other countries of the area of its cooperation in an effort to preserve the Indian Ocean as a zone of peace. 18/

104. Bangladesh noted that non-aligned States had advocated the concept of the Indian Ocean as a zone of peace because it had become an arena of great Power rivalry. 19/

105. Madagascar held that the creation of a zone of peace in the Indian Ocean would make it possible for the countries concerned to get together in order to establish co-operation based on genuine mutual trust. They would be able to utilize their material resources for purely peaceful purposes and to guarantee their independence and sovereignty without direct or indirect interference. 20/

106. Sri Lanka recalled that, in requesting the inscription of the item at the twenty-sixth session of the General Assembly, it had considered immediate action necessary to arrest and reverse the trend that had lately become manifest, which, if allowed to continue unchecked, could render the progressive militarization of the Indian Ocean unavoidable. 21/

107. Mauritius said that it was deeply concerned that the competitive expansion of the military presence of the great Powers in the Indian Ocean would lead to an increase of tension in the area, and called upon the great Powers to refrain from increasing and strengthening their military presence in the region. 22/

108. China held that the desire of the countries of the Indian Ocean zone to maintain peace in the region should be respected, and that the establishment of the zone also depended on those countries basing their mutual relations on the principles of respect for sovereignty and territorial integrity, mutual non-aggression, non-interference on each other's internal affairs, equality and mutual benefit and peaceful coexistence. 23/

17/ Ibid., A/C.1/PV.2003

18/ Ibid., A/C.1/PV.2004

19/ Ibid., A/C.1/PV.2011

20/ Official Records of the General Assembly, Twenty-Ninth Session, Plenary Meetings, A/PV.2139

21/ Official Records of the General Assembly, Twenty-Ninth Session, First Committee, A/C.1/2015.

22/ Ibid., A/C.1/2016

23/ Ibid., A/C.1/2019

109. The Soviet Union abstained from voting on the resolution, explaining that it was ready to take part, on an equal footing with all other interested States, in the search for favourable solutions to the problem of the Indian Ocean, provided that there was observance of the generally acknowledged rules of international law. In drafting the provisions of the Declaration, there should be no infringement of the principle of freedom of navigation, particularly when it comes to the carrying out of scientific research by means of naval vessels. The Soviet Union had never had or created, and was not now creating military or naval bases in the Indian Ocean region and the Declaration required primarily the elimination of all foreign bases in the area.. Canada also abstained, although it made it clear that this did not indicate a lack of sympathy towards the intention of the co-sponsors. In its opinion, the responsibility for elaborating specific proposals for denuclearized or demilitarized zones rested primarily with the States of the area most directly concerned and this goal should be substantially achieved before other States were called upon to endorse such arrangements. The United Kingdom shared the desire of the sponsors to maintain and enhance peace and stability in the region of the Indian Ocean, but it had felt obliged to abstain because the resolution might prevent the United Kingdom from fulfilling some of its commitments within and beyond the area which, it stated, presented no threat whatever to any State in the area. France fully understood the anxiety of the States bordering on the Indian Ocean and their desire to rid that area of the seeds of conflict. However, it held that this objective could not be sought by establishing arrangements that would lead to modifying the essential principles of international law, such as the freedom of navigation on the high seas. 24/

110. At its thirtieth session, the General Assembly had before it the report of the Ad Hoc Committee on the Indian Ocean with a draft resolution annexed to it. The draft resolution was adopted as resolution 3468 (XXX) by 106 votes to none, with 25 abstentions. China voted in favour, while France, the Soviet Union, the United Kingdom and the United States abstained. The resolution reads as follows:

"The General Assembly,

"Recalling the Declaration of the Indian Ocean as a Zone of Peace, contained in its resolution 2832 (XXVI) of 16 December 1971, and recalling also its resolutions 2992 (XXVII) of 15 December 1972, 3080 (XXVIII) of 6 December 1973 and 3259 A (XXIX) of 9 December 1974,

"Reaffirming its conviction that action in furtherance of the objectives of the Declaration would be a substantial contribution to the strengthening of international peace and security,

"Calling attention to the provisions of resolution 3259 A (XXIX), especially paragraph 4, in which the General Assembly requested the littoral and hinterland States of the Indian Ocean to enter, as soon as possible, into consultations with a view to convening a conference on the Indian Ocean,

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24/ Ibid.

"1. Notes the report of the Ad Hoc Committee on the Indian Ocean, in particular section II thereof concerning the consultations entered into by the littoral and hinterland States of the Indian Ocean in pursuance of paragraph 4 of General Assembly resolution 3259 A (XXIX);

"2. Notes further that, as a result of these consultations, an agreement in principle on the convening of a conference on the Indian Ocean has emerged among the littoral and hinterland States of the Indian Ocean;

"3. Requests the littoral and hinterland States of the Indian Ocean to continue their consultations on the convening of a conference on the Indian Ocean, with particular attention to the following six points:

(a) Purposes of the conference;
(b) Date and duration;
(c) Venue
(d) Provisional agenda;
(e) Participation;
(f) Level of participation;

"4. Requests the Ad Hoc Committee to continue its work and consultations in accordance with its mandate and to submit to the General Assembly at its thirty-first session a report on its work, including the results of the consultations referred to in paragraph 3 above;

"5. Invites all States, in particular the great Powers and the major maritime users of the Indian Ocean, to co-operate in a practical manner with the Ad Hoc Committee in the discharge of its functions;

"6. Requests the Secretary-General to continue to render all necessary assistance to the Ad Hoc Committee, including the preparation of summary records."

111. During the debate in the First Committee, Australia urged the major Powers to attempt to exercise mutual restraint against expansion of their military and naval competition in the Indian Ocean. Mutual arms limitation measures could have a regional as well as a global dimension, and Australia would welcome a more positive attitude on the part of the major Powers to the objectives of the plan to make the Indian Ocean a zone of peace. 25/

112. Bangladesh held that the major objective of the proposal to establish the Indian Ocean as a zone of peace and neutrality was to exclude great Power rivalries and competition, as well as bases conceived in the context of such rivalries; the secondary objective was to complement this concept by strengthening regional cooperation and unity. 26/

113. Somalia said that it always supported the Declaration because it gave practical expression to important principles of non-alignment and also because its implementation would be a significant contribution to the goal of general and complete disarmament and the strengthening of world peace and security. 27/

25/ Official Records of the General Assembly, Thirtieth Session, First Committee, A/C.1/PV.2079

26/ Ibid., A/C.1/PV.2086

27/ Ibid., A/C.1/PV.2088

114. Sri Lanka maintained that agreement in a region as vast as the Indian Ocean on the application of the provisions of the Declaration -- resolution 2832 (XXVI) -- could, by the elimination of great power rivalry and military bases from the region, greatly reduce the risks of war. 28/

115. Indonesia held that recent developments in the Indian Ocean had added a sense of urgency to the desire of progress on this issue. Among these factors was the growing concern that big power rivalry was being heightened. Of particular importance was the immediate prospect of a conventional naval arms race, as well as the increasing activities of fleets possessing nuclear capability. 29/

116. India said that manifestations of great Power rivalry in the region had increased. Vasts sums of money were being spent in strengthening bases and facilities, and naval activities had also increased. If the Declaration were implemented in letter and in spirit, resulting in the halting of the escalation and the eventual elimination of great Power rivalry in the Indian Ocean, the question of the regional security of the States concerned would pose no problem at all. 30/

117. While introducing the text which was adopted by the General Assembly, Sri Lanka held that the Indian Ocean peace zone was directed to establishing conditions of peace and security which would obviate the need for military alliances or for the acquisition of armaments by countries of the area or for the military presence of any great Powers in the area. As regards fears that the zone would interfere with the freedom of the high seas, it noted that there was no intention of interfering with the peaceful uses of the ocean. It also stated that the sponsors were not seeking to convert the Indian Ocean into a private lake with special rights or privileges for the littoral and hinterland States, but rather the assumption by all States, through international agreement, of certain restraints in the interests of both regional and global security. Such internationally agreed restraints could not be determined unless there was active consultation between the States of the region and those outside it. 31/

118. In explaining its abstention, the Soviet Union reiterated the views expressed in connexion with the resolution adopted the previous year. It also emphasized that the Declaration would require, in the first place, the elimination of all foreign military bases in that region. 32/

119. At its thirty-first session, the General Assembly considered the report of the Ad Hoc Committee on the Indian Ocean and the draft resolution annexed to it. This draft was adopted by 106 votes to none, with 27 abstentions. China voted in favour, while France, the Soviet Union, the United Kingdom and the United States abstained. The text of resolution 31/88 reads as follows:

28/ Ibid., A/C.1/PV.2089

29/ Ibid., A/C.1/PV.2094

30/ Ibid., A/C.1/PV.2095

31/ Ibid., A/C.1/PV.2098

32/ Ibid., A/C.1/PV.2100

"The General Assembly,

"Recalling the Declaration of the Indian Ocean as a Zone of Peace, contained in its resolution 2832 (XXVI) of 16 December 1971, and recalling also its resolutions 2992 (XXVII) of 15 December 1972, 3080 (XXVIII) of 6 December 1973, 3259 A (XXIX) of 9 December 1974 and 3468 (XXX) of 11 December 1975,

"Reaffirming its conviction that concrete action in furtherance of the objectives of the Declaration would be a substantial contribution to the strengthening of international peace and security,

"Noting the resolution adopted at the Fifth Conference of Heads of State or Government of Non-Aligned Countries on the subject of the Indian Ocean Peace Zone Proposal,

"Deeply concerned that there has been an escalation of the military presence of the great Powers conceived in the context of great Power rivalry in the Indian Ocean, and believing therefore that the implementation of the purposes and objectives of the Declaration of the Indian Ocean as a Zone of Peace has acquired a new urgency,

"Regretting that, despite repeated invitations, certain great Powers as well as certain major maritime users of the Indian Ocean have not so far found it possible to co-operate with the Ad Hoc Committee on the Indian Ocean and the littoral and hinterland States of the Indian Ocean,

"1. Takes note of the report of the Ad Hoc Committee on the Indian Ocean, in particular section II thereof concerning the consultations entered into by the littoral and hinterland States of the Indian Ocean in pursuance of paragraphs 3 and 4 of General Assembly resolution 3468 (XXX);

"2. Requests the Ad Hoc Committee and the littoral and hinterland States of the Indian Ocean to continue their consultations with a view to formulating a programme of action leading to the convening of a conference on the Indian Ocean;

"3. Invites once again all States, in particular the great Powers and the major maritime users of the Indian Ocean, to co-operate in a practical manner with the Ad Hoc Committee in the discharge of its functions;

"4. Requests the Ad Hoc Committee to continue its work and consultations in accordance with its mandate and to submit to the General Assembly at its thirty-second session a report on its work;

"5. Requests the Secretary-General to continue to render all necessary assistance to the Ad Hoc Committee, including the provisions of summary records."

120. Sri Lanka said that the implementation of the zone of peace in the Indian Ocean had assumed a new urgency. Recent developments could lead to tension and conflict in the Indian Ocean through growing great Power competition for naval superiority in the area. 33/

33/ Official Records of the General Assembly, Thirty-first Session, A/C.1/31/PV.26

121. Nepal held that the stationing and strengthening of arms bases and other military installations in the region continued at an unabated rate in total disregard of the Declaration. 34/

122. The Philippines said that the logic was overwhelmingly in favour of arresting a naval arms race in the Indian Ocean, one which would be costly to those involved and threatening to the States in the area and would result in a net decrease in world security. 35/

123. Yugoslavia held that the establishment of the zone would eliminate to a great extent the danger of confrontation between the major military powers and would constitute an essential pre-condition for the dismantling of military bases and the withdrawal of foreign troops from foreign territories in general, and from these zones in particular. 36/

124. Mauritius recalled that the Declaration of the Indian Ocean as a Zone of Peace sought to protect the independence, sovereignty and territorial integrity of States in the region. In calling upon all States to consider and respect the Indian Ocean as a zone of peace, it was not intended to limit the right to free and unimpeded use of the Ocean by the vessels of those countries in conformity with international law, as long as such vessels posed no military or strategic threat to the independence, sovereignty and territorial integrity of the littoral and hinterland States. 37/

125. Pakistan pointed out that the rivalries of the great Powers in the Indian Ocean were, in part at least, a reflection of the disputes, tensions and conflicts among the States of the region. A zone of peace in the Indian Ocean required that regional States be assured against threats from both within and without the region. 38/

126. While being sympathetic towards the proposal, the Soviet Union abstained from voting on the resolution. It reiterated its views on previous resolutions, explaining also that it would be ready, together with other States, to seek ways of reducing on a mutual basis the military activities of non-coastal States in the Indian Ocean and the areas immediately adjacent to it. Such measures should fully take into account the universally acknowledged norms of international law with regard to freedom of navigation on the high seas, the need for putting into ports of coastal States, and freedom of scientific research. 39/

34/ Ibid., A/C.1/31/PV.21
35/ Ibid., A/C.1/31/PV.22
36/ Ibid., A/C.1/31/PV.25
37/ Ibid., A/C.1/31/PV.29
38/ Ibid., A/C.1/31/PV.42
39/ Ibid., A/C.1/31/PV.44

127. The United States shared the desires of the nations of the Indian Ocean area for peace and tranquility and their wish not to be subjected to military pressure by outside powers. It added that it was prepared to advance the cause of peace and stability in the region, and hoped that a similar commitment will be reflected in the actions of other outside powers. However, it abstained on the resolution because, in its opinion, its preambular reference to the original Indian Ocean Peace Zone resolution of 1971 could be interpreted as acknowledging that littoral States would have the right to establish a legal régime for the high seas in the region. The delegation also had reservations with respect to the multilateral conference contemplated in the resolution, as well as to the reference in its preamble to the Colombo Resolution of Non-aligned countries. 40/

40/ Ibid., A/C.1/31/PV.44

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PREPARATORY COMMITTEE FOR THE SPECIAL SESSION OF THE GENERAL ASSEMBLY DEVOTED TO DISARMAMENT

A COMPREHENSIVE STUDY OF THE ORIGIN, DEVELOPMENT, AND PRESENT STATUS OF THE VARIOUS ALTERNATIVES PROPOSED FOR THE PROHIBITION OF THE USE OF NUCLEAR WEAPONS

Working paper prepared by the Secretariat

CONTENTS

INTRODUCTION

1. By resolution 31/189 of 21 December 1976, the General Assembly decided to convene a special session devoted to disarmament, to be held in New York in May/June 1978. It further decided to establish a Preparatory Committee for the Special Session of the General Assembly Devoted to Disarmament, composed of 54 Member States appointed by the President of the Assembly on the basis of equitable geographical distribution, with the mandate of examining all relevant questions relating to the special session, including its agenda, and to submit to the Assembly at its thirty-second session appropriate recommendations thereon.

2. The General Assembly also requested the Secretary-General to render the Preparatory Committee all necessary assistance, including the provision of essential background information, relevant documents and summary records.

3. At its 14th meeting on 20 May 1977, the Preparatory Committee requested the Secretariat to prepare certain working papers. Included among them was "A comprehensive study of the origin, development, and present status of the various alternatives proposed for the prohibition of the use of nuclear weapons".

4. In response to this request of the Preparatory Committee, the Secretariat has prepared this working paper, which draws mainly on the publication The United Nations and Disarmament, 1945-1970 and its supplement The United Nations and Disarmament, 1970-1975 and other United Nations documents.

PROHIBITION OF THE USE OF NUCLEAR WEAPONS

1. Early initiatives

5. On 19 June 1946, the Soviet Union proposed the unconditional prohibition of use of nuclear weapons in a draft convention 1/ submitted to the Atomic Energy Commission. Its Article I provided that the parties to the Convention assume the following obligations:

(a) Not to use atomic weapons in any circumstances whatsoever;

(b) To prohibit the production and storing of weapons based on the use of atomic energy; and

(c) To destroy, within a period of three months from the day of the entry into force of the present convention, all stocks of atomic energy weapons whether in a finished or unfinished condition.

6. The question of non-use of nuclear weapons was later considered in the Sub-Committee of the Disarmament Commission in connexion with the consideration of a comprehensive and co-ordinated plan of disarmament. Members of the Sub-Committee were Canada, France, the Soviet Union, the United Kingdom and the United States.

/...

7. On 1 June 1954, the Soviet Union submitted a draft resolution 2/ on non-use of nuclear weapons, which read:

> "The Disarmament Commission deems it essential that, as an important step towards achieving complete elimination from the armaments of all States of atomic, hydrogen and other types of weapons of mass destruction, together with the simultaneous establishment of strict international control securing the observance of an agreement to prohibit the use of atomic energy for military purposes, the States concerned should assume a solemn and unconditional obligation not to employ atomic, hydrogen or other weapons of mass destruction."

8. The position of the Soviet Union was reiterated in its proposal 3/ entitled "Basic provisions of a draft international convention for the prohibition of atomic, hydrogen and other weapons of mass destruction, for a substantial reduction in armaments and armed forces, and for the establishment of international control over the observance of the convention", submitted to the Sub-Committee on 11 June 1954.

9. On the same day, France and the United Kingdom proposed the conditional prohibition of use in submitting to the Sub-Committee a joint proposal, 4/ the first paragraph of which provided:

> "The States members of the Sub-Committee regard themselves as prohibited in accordance with the terms of the Charter of the United Nations from the use of nuclear weapons except in defence against aggression. They recommend that the disarmament treaty should include an immediate and explicit acceptance of this prohibition by all signatory States, pending the total prohibition and elimination of nuclear weapons as proposed in the subsequent paragraphs of this memorandum. They further recommend that the obligations assumed by the Members of the United Nations to refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any State should be accepted by all signatory States not members of the United Nations."

10. In connexion with the above proposal, the Soviet Union at the ninth session of the General Assembly in 1954, proposed 5/ that the General Assembly instruct the United Nations Disarmament Commission to study and clarify the question and submit its recommendations.

11. During the debate, the Soviet Union observed that the French-British proposal for the conditional prohibition of the use of nuclear weapons "except in defence against aggression" might sanction the use of atomic weapons on the pretext of defence. 6/

12. Subsequently, the five members of the Sub-Committee sponsored resolution 808 (IX), which concluded that a further effort should be made to reach agreement on comprehensive and co-ordinated proposals to be embodied in a draft international convention providing for the total prohibition of the use and production of nuclear weapons, together with the conversion of existing stocks of

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such weapons for peaceful purposes, in the context of other measures concerning a major reduction of all armed forces and all conventional armaments and the prohibition of weapons of mass destruction of every type.

13. On 8 March 1955, Canada, France, the United Kingdom and the United States submitted to the Sub-Committee a joint draft resolution 7/ in which the General Assembly would, inter alia, consider that all States possessing nuclear weapons should regard themselves as prohibited, in accordance with the terms of the Charter of the United Nations, from using such weapons, except in defence against aggression.

14. On 10 May 1955, the Soviet Union submitted to the Sub-Committee a draft disarmament programme 8/ entitled "Reduction of Armaments, the Prohibition of Atomic Weapons, and the Elimination of the Threat of a New War" in which the Soviet Union proposed:

> "Simultaneously with the initiation of measures for the reduction of the armaments and armed forces of the five Powers by the first 50 per cent of the agreed reduction to the prescribed levels and before the entry into force of the agreement on the complete prohibition of atomic weapons, States shall assume a solemn obligation not to use nuclear weapons, which they shall regard as prohibited to them. Exceptions to this rule may be permitted for purposes of defence against aggression, when a decision to that effect is taken by the Security Council."

15. At a meeting of the Sub-Committee in August 1955, the Soviet Union introduced a proposal 9/ that, as a preliminary step, the nuclear Powers assume the obligation not to be the first to use nuclear weapons.

16. On 30 April 1957, the Soviet Union submitted to the Sub-Committee a proposal 10/ for the reduction of armaments and armed forces and the prohibition of nuclear weapons. The proposal provided for an undertaking in the first stage to renounce the use of nuclear weapons of all types, including aerial bombs, rockets carrying atomic and hydrogen warheads irrespective of range, and atomic artillery.

17. On 29 August 1957, Canada, France, the United Kingdom and the United States submitted to the Sub-Committee a working paper 11/ for practical disarmament measures, reiterating the proposal for the conditional ban of use submitted on 8 March 1955.

18. At the twelfth session of the General Assembly, the Soviet Union submitted a draft resolution 12/ which, among other steps, would give priority to the prohibition of atomic weapons and their elimination and would call upon States possessing nuclear weapons to assume, as a first step, an obligation not to use such weapons for a period of at least five years. The Soviet draft resolution was not adopted in the First Committee. 13/

2. Efforts towards a convention on non-use of nuclear weapons in the 1960s

19. At the sixteenth session of the General Assembly in 1961 a draft resolution 14/ was submitted by Ethiopia, together with 11 other African and Asian countries - Ceylon, Ghana, Guinea, Indonesia, Liberia, Libya, Nigeria, Somalia, Sudan, Togo and Tunisia - calling for a ban on the use of nuclear weapons and requesting the

Secretary-General to conduct an inquiry into the possibility of convening a conference to sign a convention on the prohibition of the use of these weapons.

20. Italy submitted a number of amendments 15/ to the 12-Power text providing, in effect, for the prohibition of the use of nuclear and thermonuclear weapons only when "contrary to the Charter of the United Nations".

21. The United States opposed the draft resolution on the ground that its aim could only be achieved by complete and controlled disarmament and that it sanctioned, by implication, other means of warfare. Both the United States and the United Kingdom maintained that the right of individual and collective self-defence, including the right to determine the degree of force necessary to repel aggression, could not be abrogated.

22. The Soviet Union considered that the declaration would provide a good basis for the solution of the problem of the prohibition of the use of nuclear weapons and that it would facilitate the implementation of general and complete disarmament.

23. After rejecting the Italian amendments, the Assembly, on 24 November 1961, adopted the draft resolution as resolution 1653 (XVI). The operative part of the resolution reads as follows:

"1. Declares that:

(a) The use of nuclear and thermonuclear weapons is contrary to the spirit, letter and aims of the United Nations and, as such, a direct violation of the Charter of the United Nations;

(b) The use of nuclear and thermonuclear weapons would exceed even the scope of war and cause indiscriminate suffering and destruction to mankind and civilization and, as such, is contrary to the rules of international law and to the laws of humanity;

(c) The use of nuclear and thermonuclear weapons is a war directed not against an enemy or enemies alone but also against mankind in general, since the peoples of the world not involved in such a war will be subjected to all the evils generated by the use of such weapons;

(d) Any State using nuclear and thermonuclear weapons is to be considered as violating the Charter of the United Nations, as acting contrary to the laws of humanity and as committing a crime against mankind and civilization;

2. Requests the Secretary-General to consult the Governments of Member States to ascertain their views on the possibility of convening a special conference for signing a convention on the prohibition of the use of nuclear and thermonuclear weapons for war purposes and to report on the results of such consultation to the General Assembly at its seventeenth session."

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24. In accordance with this resolution, the Secretary-General, requested Member Governments to state their views on the possibility of convening a special conference. In April, he submitted a report transmitting the views of 58 Member Governments 16/ and, in September and December, two supplementary reports giving the views of 4 more Member Governments. 17/

25. These reports showed that 33 Governments had expressed favourable views about the possibility of convening a special conference for signing the proposed convention; 26 Governments had expressed negative views or had some doubts about the proposed course of action at the time; and 3 Governments had indicated a preference for awaiting the results of the Conference of the Eighteen-Nation Committee on Disarmament before submitting their views.

26. At the seventeenth session of the General Assembly, in 1962, a draft resolution 18/ submitted by 21 non-aligned countries requested the Secretary-General to "consult further the Governments ... to ascertain their views on the possibility of convening a special conference for signing a convention on the prohibition of the use of nuclear and thermonuclear weapons for war purposes, and to report on the results of such consultation to the ... Assembly".

27. On 14 December 1962, the draft was adopted by the General Assembly as resolution 1801 (XVII). The United States explained that it had abstained in the vote because a convention against the use of nuclear weapons, not accompanied by other measures leading to general and complete disarmament, could actually increase the danger of aggression. The Soviet Union rejected the implication that those who voted in favour of the resolution thereby indicated less concern about general and complete disarmament, and said that the proposed convention would be one of the important partial measures.

28. In September 1963, the Secretary-General submitted a report 19/ to the General Assembly on the results of his further consultations, conveying the replies of 12 Governments.

29. The question of convening a conference for the purpose of signing a convention on the prohibition of the use of nuclear and thermonuclear weapons was again considered at the Assembly's eighteenth session. In resolution 1909 (XVIII), adopted on 27 November 1963, the Assembly referred the matter to the Eighteen-Nation Committee on Disarmament (ENDC) for urgent consideration. The Soviet Union voted in favour of the resolution; France, the United Kingdom and the United States, voted against it.

30. In ENDC, Ethiopia expressed the view that a convention would be a precautionary measure to protect humanity from a nuclear catastrophe at a time when nuclear stockpiles were being increased and perfected and when efforts were still being made to cope with the dangers of the proliferation of nuclear weapons. Ethiopia urged that ENDC recommend to the General Assembly that it convene the proposed international conference.

31. The United States maintained that nuclear war could not be prevented by a declaration of intention alone; a convention might even create a false sense of

security as it would give the impression that an act of aggression could be committed without the risk of nuclear war. The United States could not, therefore, agree to the holding of the conference.

32. The Soviet Union stated that, although the convention in itself could not prevent a nuclear war, it could reduce the possibility of such a war. Nigeria suggested that the convention might be linked to measures to reduce the risk of war and to a non-aggression pact. Mexico, while in favour of the ultimate signing of the convention, considered that a special conference must be held within the context of general and complete disarmament, that is, when the process of disarmament has already been effectively initiated.

33. During the 1965 session of the Disarmament Commission, the Soviet Union introduced a draft resolution 20/ calling upon all States to bring about the conclusion of a convention on the prohibition of the use of nuclear and thermonuclear weapons not later than the first half of 1966, and in the meantime inviting States possessing nuclear weapons to declare that they would not be the first to use them. A number of countries supported this approach, but others contended that the question must be dealt with in the context of balanced general disarmament. The Soviet Union did not press for a vote on its draft resolution.

34. At its twentieth session, in 1965, the General Assembly decided to refer the item on the question of convening a conference to sign a convention on the prohibition of nuclear weapons to ENDC for further study and postponed its consideration to the twenty-first session. 21/

35. At the Committee's 1966 session, however, the Soviet Union stressed the importance it attached to a ban on the use of nuclear weapons and, as a first step, to a declaration by States that they would not be the first to use them. 22/

36. At the twenty-first session of the General Assembly, the question of convening a conference to sign a convention on the subject was again on the agenda, and a draft resolution was submitted by Ethiopia, India, Mexico, the United Arab Emirates and Yugoslavia, requesting that "the forthcoming world disarmament conference" give serious consideration to this matter. In supporting the resolution, Pakistan stated that no effective disarmament measure could be taken without the support of all nuclear Powers, including the People's Republic of China, while Albania referred to a proposal of the People's Republic of China that the question of complete prohibition and total destruction of nuclear weapons be dealt with at a world conference. France and Ireland expressed doubt that a purely declaratory agreement to prohibit the use of nuclear arms could be effective, while Canada thought the prospects of success of a world disarmament conference would not be enhanced by the referral of this matter to it. On 5 December 1966, the General Assembly adopted the non-aligned proposal as resolution 2164 (XXI).

37. At the request of the Soviet Union, the question of concluding a convention on the prohibition of nuclear weapons was placed on the agenda of the twenty-second session of the General Assembly as an urgent matter. 23/ Attached to the Soviet Union's request was a draft convention under which the contracting parties would undertake:

(1) To refrain from using, or from threatening to use, nuclear weapons and from inciting other States to use them; and

(2) To reach early agreement on ceasing production and destroying stockpiles of nuclear weapons, in conformity with a treaty on general and complete disarmament.

In an explanatory memorandum, the Soviet Union deplored the fact that, despite long consideration of this matter in the United Nations and the positive attitude of many Governments, such an important convention had not yet been concluded. The question had now assumed special urgency, the Soviet Union maintained, as a result of the accumulation of huge nuclear weapons stocks and the aggressive action of certain States. In the ensuing discussion, the Soviet Union stressed the close link between the proposed convention and the General Assembly's declaration of 24 November 1961.

38. Among those supporting the idea of such a convention, Afghanistan, Ghana, India and the United Arab Emirates stressed the view that, to be effective, the agreement would require the support of all nuclear Powers, which, Ghana specifically stated, should include the People's Republic of China, Nepal favoured the holding of a world disarmament conference for the purpose of concluding such a convention. The United States opposed any ban on the use of nuclear weapons in self-defence, and maintained that agreements with verification provisions must first limit and later reduce and fully eliminate nuclear weapons, in the context of general and complete disarmament under strict international control. France also thought measures which, by their very nature, could not be verified were neither realistic nor desirable as first steps in a programme of disarmament. Australia, Canada, the Netherlands and the United Kingdom believed such a ban could best be dealt with in the context of general and complete disarmament, while Italy thought the proposed ban might reduce the incentive to seek this goal. On the other hand, Poland, Yugoslavia, Algeria and Ethiopia not only supported the proposed measure but believed it would facilitate negotiations towards general and complete disarmament.

39. On 8 December 1967, the Assembly adopted resolution 2289 (XXII), the operative part of which reads as follows:

"1. Expresses its conviction that it is essential to continue urgently the examination of the question of the prohibition of the use of nuclear weapons and of the conclusion of an appropriate international convention;

"2. Urges all States, in this connexion, to examine in the light of the Declaration adopted by the General Assembly in resolution 1653 (XVI) the question of the prohibition of the use of nuclear weapons and the draft convention on the prohibition of the use of nuclear weapons proposed by the Union of Soviet Socialist Republics and such other proposals as may be made on this question, and to undertake negotiations concerning the conclusion of an appropriate convention through the convening of an international conference, by the Conference of the Eighteen-Nation Committee on Disarmament, or directly between States;

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"3. Requests the Secretary-General to transmit to all States Members of the United Nations and to the Conference of the Eighteen-Nation Committee on Disarmament the draft convention on the prohibition of the use of nuclear weapons proposed by the Union of Soviet Socialist Republics and the records of the meetings of the First Committee relating to the discussion of the item entitled 'Conclusion of a convention on the prohibition of the use of nuclear weapons'."

40. In the provisional agenda for the Committee's future work adopted by ENDC during the latter part of its 1968 session, 24/ the Committee noted that members might discuss the non-use of nuclear weapons under the priority agenda item relating to nuclear disarmament. At the twenty-third session of the General Assembly, the item was not on the agenda, as in the past, but was listed in the Soviet Union's memorandum 25/ of 1 July 1968, on some urgent measures for stopping the arms race and for disarmament, which was placed on the agenda as a special item at the request of the Soviet Union. The memorandum proposed that ENDC discuss the Soviet Union's draft convention as a matter of high priority and exchange opinions on the convening of an international conference to sign an appropriate convention. The general position of the Soviet Union and other States of East Europe on the subject was supported in the debate by Afghanistan, the Democratic Republic of the Congo, India, Madagascar, Pakistan, the United Arab Emirates and Yugoslavia. India thought such a ban, as other declaratory prohibitions in the past, would have a considerable moral and psychological effect. Ireland, on the other hand, stressed its reservations on negotiating a convention which might develop a false sense of security and lead States to reduce their efforts to halt the further spread of nuclear weapons. The Assembly adopted no resolution either directly on the subject or on the subject of the Soviet Union's memorandum.

41. At the 1969 session of ENDC, there was little discussion of the subject, although the Soviet Union renewed its call for agreement on a draft convention.

3. Consideration in the context of nuclear-weapon-free zones

(a) Central Europe

42. On 14 February 1958, Poland published a memorandum 26/ which provided for the establishment of a nuclear-weapon-free zone covering Poland, Czechoslovakia, East Germany and West Germany, and for the prohibition of the use of nuclear weapons against the area. On 28 March 1962, Poland submitted to ENDC a plan for a denuclearized and limited armaments zone in Europe and reiterated the proposal indicated in the memorandum. Those proposals were found unacceptable to the main Western Powers which held that they contained no limitation on conventional forces and made no contribution to the reunification of Germany.

(b) Latin America

43. Additional Protocol II of the Treaty for the Prohibition of Nuclear Weapons in Latin America provides that the nuclear-weapon Powers would undertake fully to

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respect the status of denuclearization of Latin America and also would undertake not to use or threaten to use nuclear weapons against the parties to the Treaty.

44. At the twenty-second session of the General Assembly in 1967, a draft resolution 27/ was submitted by the Latin American States, by which the General Assembly would, inter alia, welcome with special satisfaction the Treaty; and invited the Powers possessing nuclear weapons to sign and ratify Additional Protocol II of the Treaty as soon as possible. The draft was adopted by the General Assembly on 5 December 1967 as resolution 2286 (XXII). France and the Soviet Union abstained, while the United Kingdom and the United States voted in favour.

45. In 1968, the Conference of Non-Nuclear-Weapon States adopted resolution B 28/ on the establishment of nuclear-weapon-free zones, by which the Conference regretted that not all the nuclear-weapon States had yet signed Additional Protocol II of the Treaty of Tlatelolco and urged the nuclear-weapon Powers to comply fully with the relevant provision of resolution 2286 (XXII).

46. At the twenty-third session, the General Assembly adopted resolution 2456 B (XXIII) by which the Assembly reiterated the recommendation made at the Conference of Non-Nuclear-Weapon States in its resolution B.

47. Since then, the General Assembly adopted resolutions 2666 (XXV), 2830 (XXVI), 2935 (XXVII), 3079 (XXVIII), 3258 (XXIX), 3467 (XXX) and 31/67 by which the Assembly called upon all nuclear-weapon Powers to adhere to Additional Protocol II of the Tlatelolco Treaty. Up to the present time, China, France, the United Kingdom and the United States have become parties to the Protocol.

(c) Africa

48. At the Assembly's twentieth session, African countries submitted a draft resolution 29/ on the denuclearization of Africa. It provided that the General Assembly would call upon all States to refrain from the use, or the threat of use, of nuclear weapons on the African continent. The United States, while giving the African initiative its enthusiastic support, recalled its position on the non-use of nuclear weapons that it could not subscribe to declarations or pledges of non-use of nuclear weapons outside the framework of general and complete disarmament.

49. The Soviet Union supported without reservation the aspirations of the African States to create a denuclearized zone and was prepared to respect all denuclearized zones if other Powers would assume the same obligation.

50. The General Assembly adopted the draft resolution on 3 December 1965 as resolution 2033 (XX).

51. At its twenty-ninth session in 1974, the General Assembly adopted resolution 3261 E (XXIX) on the implementation of the Declaration of the Denuclearization of Africa, by which the General Assembly, inter alia, reiterated its call upon all States to refrain from using or threatening to use nuclear weapons on the African continent. At the thirtieth session in 1976, the General Assembly repeated this appeal by resolution 3471 (XXX).

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(d) South Asia

52. At its twenty-ninth session, the General Assembly considered the establishment of a nuclear-weapon-free zone in South Asia and adopted, at the initiative of Pakistan, resolution 2362 B (XXIX) in the preamble of which the General Assembly bore in mind that the establishment of a nuclear-weapon-free zone would, inter alia, entail undertakings by nuclear-weapon States not to use or threaten the use of nuclear weapons against the States of the region.

(e) Comprehensive study of nuclear-weapon-free zones

53. In 1975, the Ad Hoc Group of Qualified Governmental Experts for the Study of the Question of Nuclear-Weapon-Free Zones discussed the question of the non-use of nuclear weapons.

54. Some experts maintained that clear and formal assurances by nuclear-weapon States not to use or threaten to use nuclear weapons against any member of a nuclear-weapon-free zone was an essential factor for the effectiveness of the zone. Other experts felt that while such an undertaking could enhance the effectiveness of the zone, this question should not be regarded as a prerequisite but considered at the time a particular zone agreement would be negotiated. The view was also expressed that one of the considerations to be taken into account was whether, in specific cases, the provision of non-use assurances could be seen as undercutting existing positive assurances. 30/

55. Most experts felt that the nuclear-weapon States should pledge themselves to respect the nuclear-weapon-free status of a zone and not to use, or threaten to use nuclear weapons against any State in a zone. 31/

56. At the thirtieth session of the General Assembly, Mexico introduced a draft resolution co-sponsored by non-aligned States which would, inter alia, provide for the definition of the principal obligations of the nuclear-weapon States towards a nuclear-weapon-free zone. It was defined as one of such obligations to refrain from using or threatening to use nuclear weapons against States in the zone. The draft was adopted as resolution 3472 (XXX). China voted in favour of the resolution. France, the United Kingdom and the United States voted against, expressing difficulty about accepting such an obligation before concrete negotiations would start for the establishing of a nuclear-weapon-free zone. The USSR abstained in the vote.

4. Non-use of force and the permanent prohibition of the use of nuclear weapons

57. At the twenty-seventh session, the General Assembly adopted resolution 2936 (XXVII), initiated by the USSR, by which the General Assembly declared the renunciation of the use or threat of force in all its forms and manifestations in international relations, in accordance with the Charter of the United Nations, and the permanent prohibition of the use of nuclear weapons, and recommended that the Security Council should take, as soon as possible, appropriate measures for the full implementation of that declaration of the General Assembly.

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58. In the debate, the USSR maintained that the adoption of the resolution would contribute to the strengthening of international security, and that if the non-use of force called for prohibiting the use of weapons of all types, all States would be in a position of equality and none would receive unilateral military advantages.

59. A number of East European and non-aligned States supported the view that a new declaration, reaffirming the Charter's principal obligations of the non-use of force and linking it with the permanent prohibition of the use of nuclear weapons, was particularly necessary at that time when aggressive force was still being used and the threat of the use of nuclear weapons existed.

60. China opposed the resolution and urged the nuclear-weapon Powers to commit themselves not to be the first to use nuclear weapons, under any circumstances.

61. A number of Western and non-aligned States, including France, the United Kingdom and the United States, abstained in the vote on the resolution. They held the general view that the United Nations Members were already under a Charter obligation to refrain in their international relations from the threat or use of force and that the operative provisions of the resolution were ambiguous. The United States stated that the resolution referred to the General Assembly's 1961 resolution on the prohibition of the use of nuclear and thermonuclear weapons, which the United States had voted against.

5. Consideration in terms of security assurances

62. At the twenty-first session, the General Assembly adopted resolution 2153 (XXI) by which the Assembly, urging efforts towards the earliest conclusion of a treaty on the non-proliferation of nuclear weapons, called upon all nuclear-weapon Powers to refrain from the use or the threat of use of nuclear weapons against States which might conclude regional treaties in order to ensure the total absence of nuclear weapons in their respective territories.

63. By that resolution, the Assembly also requested the Conference of the Eighteen-Nation Committee on Disarmament to consider urgently the proposal that the nuclear-weapon Powers should give an assurance that they would not use or threaten to use nuclear weapons against non-nuclear-weapon States without nuclear weapons on their territories, and any other proposal that had been or might be made for the solution of that problem.

64. The question of the non-use of nuclear weapons was also considered at the Conference of Non-Nuclear-Weapon States, held in Geneva in 1968, in connexion with measures to assure the security of non-nuclear-weapon States. In resolution A, the Conference reaffirmed the principle of non-use of force and the prohibition of the threat of force in relations between States by employing nuclear or non-nuclear weapons, as well as the inherent right, recognized under Article 51 of the United Nations Charter, of individual or collective self-defence. The resolution also requested the nuclear-weapon States to reaffirm these principles.

65. At the Review Conference of the Non-Proliferation Treaty in 1975, a number of States considered the non-use of nuclear weapons in the context of negative security assurances for the non-nuclear-weapon States party to the Non-Proliferation Treaty. In this connexion, Security Council resolution 255 (1968) was frequently referred to as positive security assurances.

66. Mexico, Romania and Yugoslavia, supported by a number of non-aligned States suggested a draft additional protocol to the Non-Proliferation Treaty. 32/ Its article I provided that the depositary Governments of the Treaty should undertake (a) never and under no circumstances to use or threaten to use nuclear weapons against non-nuclear-weapon States parties to the Treaty whose territories were completely free from nuclear weapons, and (b) refrain from the first use of nuclear weapons against any other non-nuclear-weapon States parties to the Treaty. Those Powers submitted a draft resolution 33/ which endorsed the aim of security assurances for the non-nuclear-weapon States pursued by the draft Additional Protocol. While no decision was taken at the Conference on the draft resolution and the draft Additional Protocol annexed to it, they were reproduced in full in annex II of the Final Document of the Conference.

67. Ghana, Nepal, Nigeria, Romania and Yugoslavia sponsored a draft resolution, 34/

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by which the Conference would invite the non-nuclear-weapon States party to the Treaty on whose territories, waterways or air space nuclear-weapon delivery systems were deployed not to allow the use or the threat of use of nuclear weapons against other non-nuclear-weapon States parties to the Treaty.

68. While no decision was taken at the Conference on the draft resolution, it was reproduced in full in annex II of the Final Document of the Conference.

69. The consensus view of the Conference on those questions was indicated in its Final Declaration, 35/ as follows:

> "The Conference urges all States, both nuclear-weapon States and non-nuclear-weapon States to refrain, in accordance with the Charter of the United Nations, from the threat or the use of force in relations between States, involving either nuclear or non-nuclear-weapons. Additionally, it stresses the responsibility of all Parties to the Treaty and especially the nuclear-weapon States, to take effective steps to strengthen the security of non-nuclear-weapon States, and to promote in all appropriate fora the consideration of all practical means to this end, taking into account the views expressed at this Conference."

70. At the thirty-first session of the General Assembly, Pakistan introduced a draft resolution by which the Assembly would request the nuclear-weapon States, as a first step towards a complete ban on the use or threat of use of nuclear weapons, to consider undertaking, without prejudice to their obligations arising from treaties establishing nuclear-weapon-free zones, not to use or threaten to use nuclear weapons against non-nuclear-weapon States not parties to the nuclear security arrangements of some nuclear-weapon Powers.

71. The draft resolution was adopted as resolution 31/189 C. China voted in favour while France, the Soviet Union, the United Kingdom and the United States abstained.

72. The United States stated that it had sought through a variety of means to promote the security of non-nuclear-weapon States, but that it had not been able to accept proposals for universally applicable assurances on the non-use of nuclear weapons because it had not discovered any formulation that would effectively serve the varied security needs of such States. It reiterated that the United States stood ready to consider appropriate means of strengthening the security of non-nuclear-weapon States, provided such means did not detrimentally affect existing security arrangements, but believed that the non-use formulation contained in the draft resolution did not fully meet that criterion.

73. France noted that in specific circumstances the French Government would be prepared to give guarantees on the non-use of nuclear weapons, as it did when it signed Protocol II of the Tlatelolco Treaty. However, the resolution addressed the problem of safeguards given to non-nuclear-weapon States by nuclear-weapon States

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from a very general point of view, which was not in keeping with French views on matters of national defence. India explained that it had abstained in the voting because in operative paragraph 1 non-nuclear-weapon States had been divided into different categories and that such categorization did not serve the purpose of ensuring the security of non-nuclear-weapon States.

6. Present status of alternative proposals

74. One proposal regarding the non-use of nuclear weapons is the unconditional prohibition of such use, as provided for in Additional Protocol II of the Treaty for the Prohibition of Nuclear Weapons in Latin America. This alternative is also indicated in the draft Additional Protocol III to the Non-Proliferation Treaty (proposed by Bolivia, Ecuador, Ghana, Mexico, Nigeria, Peru, Romania, Senegal, Sudan, Yugoslavia and Zaire at the Review Conference of the Non-Proliferation Treaty in 1975) which provided that the depositary Governments of the Treaty undertake never and under no circumstances to use or threaten to use nuclear weapons against non-nuclear-weapon States parties to the Treaty whose territories were completely free from nuclear weapons.

75. A number of General Assembly resolutions relating to the question of nuclear-weapon-free zones aim at the unconditional prohibition of the use of nuclear weapons. Still other General Assembly resolutions relating to security assurances for non-nuclear-weapon States similarly aim towards unconditional prohibitions.

76. A similar concept is advocated by China, which has repeatedly urged all nuclear-weapon States to declare not to be first to use nuclear weapons under any circumstances.

77. The non-first use of nuclear weapons is also indicated in the draft Additional Protocol III to the Non-Proliferation Treaty which provides that all the depositary Governments of the Treaty undertake to refrain from first use of nuclear weapons against any non-nuclear-weapon States parties to the Treaty whose territories are not completely free from nuclear weapons.

78. Another proposal is the conditional prohibition of the use of nuclear weapons. The concept of conditional prohibition is precisely indicated in the joint proposal of 1954 by France and the United Kingdom by which States would regard themselves as prohibited in accordance with the terms of the Charter of the United Nations from the use of nuclear weapons except in defence against aggression.

79. There is also a further proposal for the permanent prohibition of the use of nuclear weapons provided for in General Assembly resolution 2936 (XXVII) initiated by the USSR in 1972.

80. As outlined in this working paper, these alternative proposals have been discussed at different stages since the question of non-use of nuclear weapons was first considered in the United Nations.

NOTES

1/ Official Records of the Atomic Energy Commission, First Year, No. 2, 2nd meeting, pp. 26-28.

2/ Official Records of the Disarmament Commission, Supplement for April, May and June 1954, document DC/SC.1/7.

3/ Ibid., document DC/SC.1/9 (DC/53, annex 8).

4/ Ibid., document DC/SC.1/10 (DC/53, annex 9).

5/ Official Records of the General Assembly, Ninth Session, Annexes, agenda items 20 and 68, p. 3.

6/ Ibid., First Committee, 686th meeting.

7/ Official Records of the Disarmament Commission, Supplement for April to December 1955, document DC/SC.1/15/Rev.1.

8/ Ibid., document DC/SC.1/26/Rev.2 (DC/71, annex 15).

9/ Ibid., document DC/SC.1/29/Rev.1.

10/ Ibid., Supplement for January to December 1957, document DC/SC.1/55.

11/ Ibid., document DC/SC.1/66.

12/ Official Records of the General Assembly, Twelfth Session, document A/C.1/L.175/Rev.1.

13/ Ibid., First Committee, 893rd meeting.

14/ Official Records of the General Assembly, Sixteenth Session, Annexes, agenda items 72 and 73, document A/4942/Add.3, paras. 7 to 9.

15/ Ibid.

16/ Official Records of the Disarmament Commission, Supplement for January 1961 to December 1962, document DC/201 and Add.1-3.

17/ Ibid., documents DC/204 and Add.1 and DC/205.

18/ Official Records of the General Assembly, Seventeenth Session, Annexes, agenda item 26, document A/5323, paras. 6 and 7.

19/ Ibid., Eighteenth Session, Annexes, agenda item 27, document A/5518.

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20/ DC/219.

21/ Official Records of the General Assembly, Twentieth Session, Annexes, agenda item 29, document A/6125.

22/ Official Records of the Disarmament Commission, Supplement for 1966, documents DC/228 and ENDC/167.

23/ Official Records of the General Assembly, Twenty-second Session, Annexes, agenda item 96, document A/6834.

24/ Official Records of the Disarmament Commission, Supplement for 1967 and 1968, document DC/231.

25/ Official Records of the General Assembly, Twenty-third Session, Annexes, agenda items 27, 28, 29, 94 and 96, documents A/7134 and A/7223.

26/ Documents on Disarmament, 1945-1959, United States, Department of State, vol. II, pp. 944-948; also Department of State Bulletin, 19 May 1958, pp. 821-822.

27/ Official Records of the General Assembly, Twenty-second Session, Annexes, agenda item 91, document A/6921, paras. 5 and 6.

28/ Ibid., Twenty-third Session, Annexes, agenda item 96, document A/7277, resolution B.

29/ Ibid., Twentieth Session, Annexes, agenda item 105, document A/6127, para. 4 (A/C.1/L.346).

30/ Ibid., Thirtieth Session, Supplement No. 27A (A/10027/Add.1), para. 115.

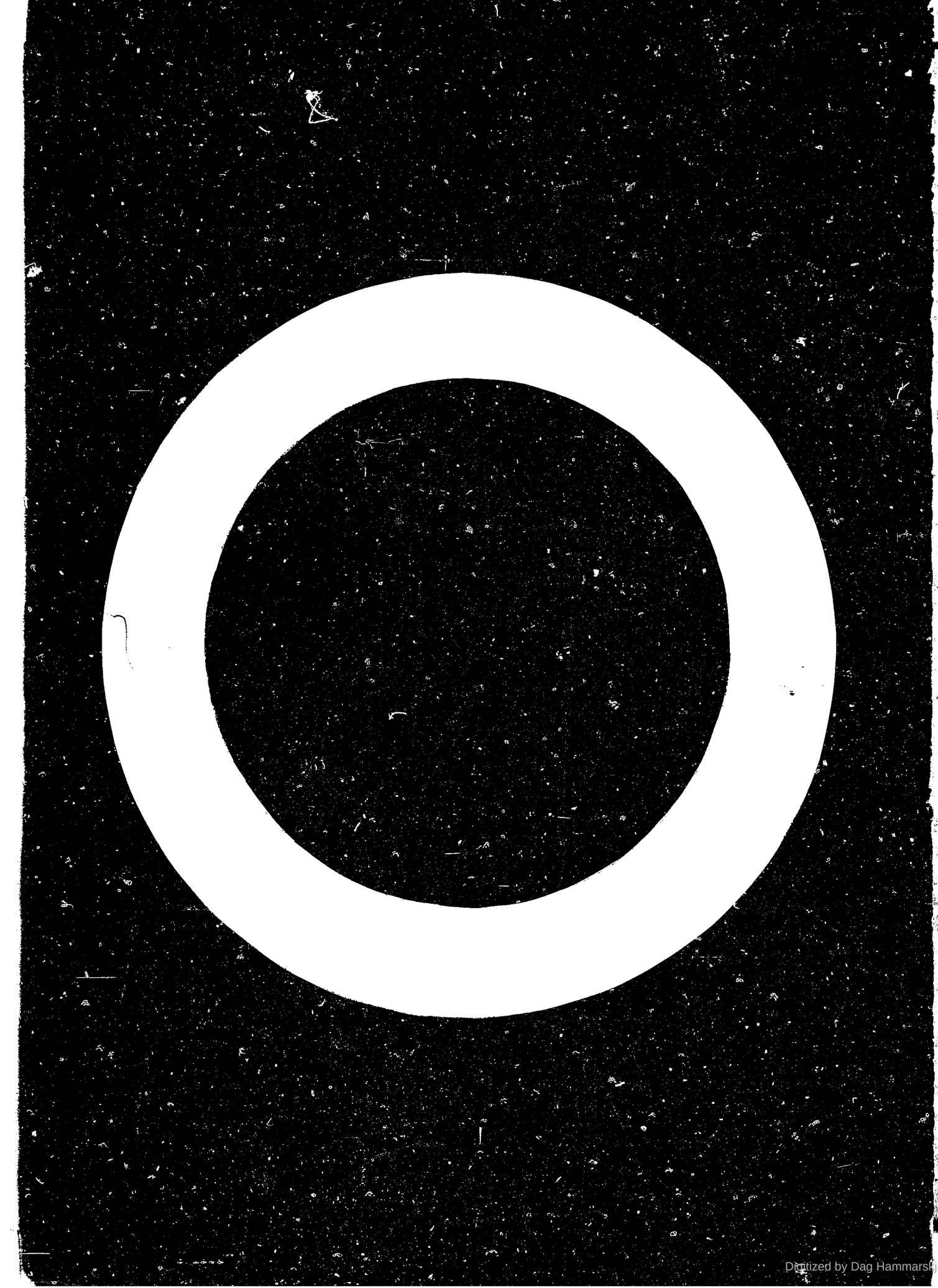
31/ Ibid., para. 119.

32/ NPT/CONF.35/1, annex II, pp. 10-11.

33/ Ibid., p. 9.

34/ Ibid., p. 12.

35/ NPT/CONF.35/1, annex I, p. 10.



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PREPARATORY COMMITTEE FOR THE SPECIAL SESSION OF THE GENERAL ASSEMBLY DEVOTED TO DISARMAMENT

AN ANALYTICAL SUMMARY OF THE UNITED NATIONS STUDIES DESCRIBING THE EFFECTS OF THE POSSIBLE USE OF NUCLEAR WEAPONS, CHEMICAL WEAPONS, BACTERIOLOGICAL (BIOLOGICAL) WEAPONS AND NAPALM AND OTHER INCENDIARY WEAPONS, AS WELL AS THOSE DEALING WITH THE REDUCTION OF MILITARY BUDGETS, WITH THE ECONOMIC AND SOCIAL CONSEQUENCES OF THE ARMS RACE AND DISARMAMENT AND WITH THE RELATIONSHIP BETWEEN DEVELOPMENT AND DISARMAMENT

Working paper prepared by the Secretariat

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INTRODUCTION

1. By resolution 31/189 B of 21 December 1976, the General Assembly decided to convene a special session devoted to disarmament, to be held in New York in May/June 1978. It further decided to establish a Preparatory Committee for the Special Session of the General Assembly devoted to Disarmament, composed of 54 Member States appointed by the President of the Assembly on the basis of equitable geographical distribution, with the mandate of examining all relevant questions relating to the special session, including its agenda, and to submit to the Assembly at its thirty-second session appropriate recommendations thereon.

2. The General Assembly also requested the Secretary-General, inter alia, to render the Preparatory Committee all necessary assistance, including the provision of essential background information, relevant documents and summary records.

3. At its fourteenth meeting on 20 May 1977, the Preparatory Committee requested the Secretariat to prepare certain working papers. Included among them was "An analytical summary of the United Nations studies describing the effects of the possible use of nuclear weapons, chemical weapons, bacteriological (biological) weapons and napalm and other incendiary weapons, as well as those dealing with the reduction of military budgets, with the economic and social consequences of the arms race and disarmament and with the relationship between development and disarmament".

4. In response to the request of the Preparatory Committee, the Secretariat has prepared this working paper, in which summaries of the following studies have been included:

(a) Effects of the Possible Use of Nuclear Weapons and the Security and Economic Implications for States of the Acquisition and Further Development of These Weapons A/6858.

(b) Chemical and Bacteriological (Biological) Weapons and the Effects of Their Possible Use A/7575/Rev.1, S/9292/Rev.1.

(c) Napalm and Other Incendiary Weapons and All Aspects of Their Possible Use A/8803/Rev.1.

(d) Reduction of the Military Budgets of States Permanent Members of the Security Council by 10 per cent and Utilization of Part of the Funds Thus Saved to Provide Assistance to Developing Countries A/9770/Rev.1.

(e) Reduction of Military Budgets, Measurement and International Reporting of Military Expenditures A/31/222/Rev.1

(f) Economic and Social Consequences of the Arms Race and of Military Expenditures A/8469/Rev.1.

(g) Economic and Social Consequences of Disarmament E/3593/Rev.1

(h) Disarmament and Development ST/ECA/174

5. Some comments are necessary in order to assess the scope of the working paper. In fulfilling the mandate given by the Preparatory Committee, the Secretariat has included all studies prepared by expert groups appointed by the Secretary-General, in pursuance of various resolutions of the General Assembly. While the working paper presents summaries of each of the studies, the original wording has been maintained for most of the texts, with a view to reflect properly the findings and opinions of the experts.

6. The abovementioned studies cover various aspects relating to arms and disarmament questions. It should be noted, however, that they were requested by the General Assembly in each particular case, in accordance with its assessment of the specific problem brought to its attention, rather than as elements of a comprehensive approach for the consideration of all relevant aspects pertaining to arms and disarmament questions. Only recently the updating of some of these studies, such as those dealing with the reduction of military budgets and the economic and social consequences of the arms race and of military expenditures, has become a matter of continuous concern for the General Assembly.

7. Some of the studies refer to military technology and weapons effects, but mainly with respect to weapons of mass destruction; nuclear, chemical and bacteriological (biological) weapons. One of them is concerned with napalm and other incendiary weapons, which have been a matter of special attention by the General Assembly. However, there have been no studies prepared regarding other conventional weapons or new weapon-systems, either of mass destruction or conventional.

8. In any evaluation of these summaries, it should be borne in mind that time elapsed since the original reports were prepared. The study on nuclear weapons was submitted to the Secretary-General on 6 October 1967, while the one dealing with chemical and bacteriological (biological) weapons was completed on 30 June 1969. The most recent study, dealing with napalm and other incendiary weapons, dates from 22 September 1972. Therefore, subsequent technological advances as a result of research and development efforts devoted to these weapon-systems are not considered. A similar problem arises in connexion with the data given in the studies concerning costs for development, production and stockpiling of such weapons. These figures might require substantial revision and updating if precise information on present costs were needed. As regards the study on nuclear weapons, it should be noted that a new and significant development took place with the

conclusion of the Treaty on the Non-Proliferation of Nuclear Weapons,1/ which entered into force on 5 March 1970. After the submission of the report on chemical and bacteriological (biological) weapons, the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction,2/ the first multilateral agreement of actual disarmament, entered into force on 26 March 1975

9. As stated previously, the studies on nuclear, chemical, bacteriological (biological), napalm and other incendiary weapons are concerned with their technology and effects. They provide background information for a better understanding of such weapons and the consequences of their use, but they are not intended to tackle specific problems that may arise in disarmament negotiations.

10. As indicated in paragraph 6 above, the studies on the reduction of military budgets reflect a recent interest of the General Assembly in this question following the adoption of resolutions 3093 A and B (XXVIII). The second of the two reports on the subject, concluded in 1976, is being followed up in 1977 by the same group of experts. The question of the reduction of military budgets is closely related to the level of world military expenditures. This matter is touched upon in some of the other studies, such as those on the economic and social consequences of the arms race and of military expenditures and on disarmament and development. The Secretariat is also preparing a working paper for the Preparatory Committee on a comparative study of global military expenditures and development assistance since 1945, as stated in available official and unofficial documents. But there is no in-depth study prepared by the United Nations on the level of such expenditures.

11. With respect to the study on the economic and social consequences of the arms race and of military expenditures, it is being updated by a group of experts appointed by the Secretary-General and will be considered by the General Assembly at its thirty-second session. References are made in the first report to the characteristics and other consequences of the arms race.

12. The study on the economic and social consequences of disarmament was concluded approximately fifteen years ago. It was followed by the report on disarmament and development in 1972. Since the 1972 report is also related to the study on the economic and social consequences of the arms race and of military expenditures submitted in 1971, it cannot be strictly considered as updating the 1962 report. Differences in approach are also evident in both studies.

13. The question of international peace and security and its relationship with disarmament is discussed in the studies summarized in this working paper, in some cases with more detail than in others depending on their scope and purposes.

1/ Official Records of the General Assembly: twenty-second session, Supplement No. 16A (A/6716/Add.1), Resolution 2373 (XXII), Annex.

2/ Official Records of the General Assembly: twenty-sixth session, Supplement No. 29 (A/8429), Resolution 2826 (XXVI), Annex.

EFFECTS OF THE POSSIBLE USE OF NUCLEAR WEAPONS AND THE SECURITY AND ECONOMIC IMPLICATIONS FOR STATES OF THE ACQUISITION AND FURTHER DEVELOPMENT OF THESE WEAPONS

(A/6858)

I. EFFECTS OF THE POSSIBLE USE OF NUCLEAR WEAPONS

INTRODUCTION

1. The enormity of the shadow which is cast over mankind by the possibility of nuclear war makes it essential that its effects be clearly and widely understood. Nuclear armouries which are in being already contain large megaton weapons every one of which has a destructive power greater than that of all the conventional explosive that has ever been used in warfare since the day gunpowder was discovered. Were such weapons ever to be used in numbers, hundreds of millions of people might be killed, and civilization as we know it, as well as organized community life, would inevitably come to an end in the countries involved in the conflict. Many of those who survived the immediate destruction, as well as others in countries outside the area of conflict, would be exposed to widely-spreading radio-active contamination, and would suffer from long-term effects of irradiation and transmit, to their offspring, a genetic burden which would become manifest in the disabilities of later generations.

HIROSHIMA AND NAGASAKI

Physical effects

2. The first atomic bomb to be used in warfare had a yield of nearly twenty kilotons, that is to say it had an explosive force equivalent to nearly 20,000 tons of conventional chemical explosive (e.g. TNT). It was detonated at approximately 550 metres above Hiroshima on 6 August 1945. On 9 August a second atomic device, with a similar yield, was detonated at about the same height over Nagasaki. In Hiroshima, destruction was concentric around the centre of a spreading city whose population was about 300,000. Within seconds, a rapdily growing fire-ball developed into a mushroom-like cloud, supported, as it were, on a column of black smoke, and the heat radiating from the fire-ball caused thousands of fires.

3. By comparison with Hiroshima, Nagasaki was a narrow city surrounded by hills and open to the sea in only one direction, with a population of about 87,000 people living within three kilometres from the centre. The immediate effects of the explosion were the same, but the area of destruction and fire differed in accordance with the different layout of the cities. In both cases the heat of the explosion was so intense that, up to a distance of about a half kilometre from the centre of the disaster, the surface of domestic ceramic roof tiles melted and firing of domestic wooden houses, by direct radiation, was observed up to one and a half kilometres.

4. There are varying estimates of the casualties in Hiroshima and Nagasaki and it has proved difficult to estimate the exact numbers of exposed people who may have died after escaping from the city. Available estimates are that 78,000 were killed and 84,000 injured in Hiroshima, and that 27,000 were killed and 41,000 injured in Nagasaki. In addition, there were thousands missing in both towns. In Hiroshima 60,000 houses were completely or partially destroyed. Wooden houses within two and a half kilometres radius were carried away, while brick buildings were turned into heaps of rubble. Severe damage to houses occurred as far out as eight kilometres.

5. No exact information is available concerning the relative importance of blast, burns and nuclear radiation as the causes of fatalities in these bombings. Burn injuries constituted the major problem in medical care. People exposed in the open had been severely burned, injuries from direct radiation being incurred as far out as about two kilometres from the centre of the zone of destruction. From the day after the bombing, burns accounted for about one half of all the deaths.

6. The explosion over Hiroshima rapidly led to a firestorm which lasted for about six hours and which burned out an area of twelve square kilometres of the town. Seventy per cent of the fire-fighting machines in Fire Brigade stations were rendered unusable, and 80 per cent of the fire-fighting personnel were unable to respond to the emergency. The loss of water pressure through the breaking of pipes contributed greatly to the additional destruction by fire. But even if men and machines had survived the blast, many fires would have been inaccessible within one and a half kilometres from ground-zero.

7. About 45,000 of the fatal casualties in Hiroshima died on the day of the explosion, and some 20,000 during the following four months, as a result of traumatic wounds, burns and radiation effects. Difficulties were aggravated by shortage of supplies and equipment, and by the extraordinary demands made on crippled medical staffs. Next to immediate medical problems, the most serious challenge to those who had survived the direct effects of the explosion, were problems of water supply, housing and food. Electrical distribution systems suffered severely. To people who were not immediate casualties these difficulties compounded the profound psychological effects of the disaster of which they were part.

Long-term radiation effects

8. Apart from the effects which ionizing radiation had on the immediate victims of the explosions, the survivors were also exposed to the hazards of the radiation both in terms of latent disease occurring in the individual (somatic effects) and of changes in hereditary material (genetic effects). It had been suspected for some time that exposure to repeated moderate doses of nuclear radiation is conducive to leukaemia. A study of the survivors of the two nuclear explosions, over Hiroshima and Nagasaki, shows that the disease can undoubtedly result from a large single (acute) dose of radiation. The incidence of leukaemia in the survivors of Hiroshima and Nagasaki was observed to be increasing in 1948. It reached a peak in 1950-1952.

9. A continuing study of the survivors of the two Japanese disasters has also suggested an increased incidence for other kinds of malignant cancer, particularly cancer of the thyroid, and not just leukaemia, which has a much shorter latent interval. The indications are stronger that a significantly high proportion of the babies born to women who were pregnant when exposed to the explosion, and who survived, had heads smaller than average size, and that some of these suffered severe mental retardation.

10. Insufficient time has passed since these two nuclear disasters to determine what genetic changes, if any, were induced in the survivors.

THE SIGNIFICANCE OF THE POSSIBLE USE OF NUCLEAR WEAPONS IN FUTURE WARS

11. The obliteration of the distinction between the "front" or the "rear" of a war zone, which came about as a result of the air offensives of the Second World War, has now been compounded by the advent of nuclear weapons. Some present-day military theorists who write about nuclear war speak of attacks on cities taking place simultaneously with, or even before, attacks on armed forces and specific military targets.

12. It is therefore necessary to build up a picture of what would happen if a large city were attacked not with kiloton weapons of the kind used on the two Japanese cities but with the much more powerful hydrogen bombs or fusion bombs which are available now and whose yield is usually expressed in megatons, i.e., unit yields equivalent to one million tons of chemical explosive.

13. Since every city has its own individuality, its own pattern of services, communications and food supplies, a realistic picture of what would happen cannot be derived unless one considers a real city. One such study was made of a city, with a population of just over one million people, which extended in all directions for about eight to ten kilometres (i.e., with a surface area of some 250 sq. km.) and attacked, it was assumed, with a single one-megaton nuclear weapon, burst at ground level. Using the experience of Hiroshima and Nagasaki, and estimating also on the basis of the results of carefully designed weapons effects experiments, the following figures of casualties emerged:

Killed by blast and fire.....	270,000
Killed by radio-active fall-out.....	90,000
Injured (of whom 15,000 were in the area of fall-out and thus exposed to the effects of radiation).....	90,000
Uninjured (of whom 115,000 were in the area of fall-out).....	710,000

14. One third of a million dead is approximately the same number of civilians who were killed by air raids both in Germany and in Japan during the whole of the Second World War. Practically all the inhabitants of the central area of the city, an area of about six by five kilometres, would have been killed, mainly as a result of the destruction caused by blast and fire. Any who were not immediately killed in the central area would have died from nuclear radiation. Most of the 90,000 of the city's population who would have suffered non-lethal injuries would have been serious casualties, and, for 15 to 20 per cent of these, rescue operations would have been greatly impeded by radio-active fall-out.

15. The scale of the physical destruction which would be associated with casualties of this order of magnitude is so great that there is no basis of experience which could serve to help describe the instantaneous transformation of a vast living city into a sea of blazing rubble. Every house or building would be damaged; about one third would be completely wrecked, i.e., with damage ranging from utter and complete obliteration, to buildings with more than half their walls down; another one third would be severely damaged, i.e., wrecked for all practical purposes, but perhaps providing some temporary shelter if nothing else were available. Only about one third of the original houses would be in any way serviceable, although they would have lost a great part of their roofs, doors and windows. In many areas, water and gas mains, sewers, and power supplies would have been destroyed. Not a single area would have retained all its essential services. Roads would have been erased and even the lightly damaged peripheral areas would very likely be deprived of their water supplies and sources of food supply.

16. In hostile circumstances of the kind we are assuming, it would be unrealistic to suppose that only one city would be struck. With many in the same desperate plight, there could be no question of any substantial help being brought to the survivors from outside. In brief, a big city of the size that has been described would for all practical purposes be eliminated by a single one-megaton weapon ground-burst near its centre. One-megaton bombs are small units in the megaton spectrum; larger weapons, much larger ones, are now stockpiled.

Radio-active contamination

17. Close to the explosion the lethal effects of radiation would be instantaneous. But nuclear weapon explosions also give rise to radio-active fission products and, in the case of a ground-burst, these become mixed with earth particles sucked into the atmosphere. The heavier particles of soil and weapon debris fall back to the ground and settle in the vicinity of the explosion, giving rise to delayed radiation hazards. These particles constitute local radio-active fall-out. For a ground-burst of the type assumed in the foregoing paragraphs, the area of intense fall-out could cover hundreds of square kilometres. Within such an area, people

who were not adequately sheltered and who did not remain under cover until the radio-activity of the fall-out had decayed substantially would be exposed to intensities of radiation sufficient to produce very serious hazards to health.

18. For a ten-megaton explosion over a hypothetical city with a population of one million people, the area of complete or serious destruction would cover between 300 and 500 sq. km., that is to say the area of the entire city. Moreover, the effects of blast and direct radiation would extend well beyond its boundaries, with heath and forest fires raging up to twenty kilometres from the ground-zero of the explosion. Half of the entire population over an area of radius of some twenty-five kilometres could be expected to die within the first few days as a result of radio-active contamination, even after allowing for some shelter provision.

19. In the case of an air-burst of a twenty-megaton bomb the heat which would result would be intense enough to start fires as far as thirty kilometres from a point of detonation, depending on how clear the atmosphere was at the time, and could endanger the lives of people in an area with a radius of nearly 60 kilometres. It has been estimated that such a device, if exploded over Manhattan, would, in the absence of shelter or evacuation programmes, probably kill 6 million out of New York City's 8 million inhabitants, and lead to an additional one million deaths beyond the city limits. The surface explosion of a twenty-megaton bomb would result in the formation of a crater 75-90 metres deep and 800 metres in diameter.

ESTIMATE OF EFFECTS OF A NUCLEAR ATTACK ON A REGION OF A COUNTRY

20. A study was made of the likely results of a nuclear attack on a hypothetical industrial region, consisting of nine cities each with populations of over 50,000 inhabitants (some well over), and also containing 140 smaller towns of fewer than 50,000 inhabitants (about sixty of which contained elements of key industry). Assuming that a one-megaton bomb burst at ground level in each of the nine cities, the study showed that cumulative estimates of casualties provided a very inadequate measure of the over-all effects of the attack. The estimates showed that 20 per cent of the total population, or 30 per cent of the urban population, or 35 per cent of the key-industrial population would be killed. The houses destroyed would be 30 per cent of total, or 40 per cent of urban, or 50 per cent of those occupied by key-industrial population. But cities are not isolated entities; they are linked in a variety of functional ways. Taking the interaction of effects into account, the study showed that the percentage of key industry in the whole region (i.e., industry with more than local significance) which would be brought to a stop would be between 70 per cent and 90 per cent of the whole.

21. A Swedish study of the consequences of nuclear attacks against Swedish cities showed that an attack carried out with about 200 weapons, ranging from 20 kilotons to 200 kilotons in yield, would result in 2 to 3 million casualties, i.e., 30 to 40 per cent of the total population of about 7 million people. It also showed that between 30 to 70 per cent of Swedish industry would be destroyed, and that about two thirds of the industrial workers would receive fatal or severe injuries.

EFFECTS ARISING FROM THE USE OF NUCLEAR WEAPONS IN FIELD WARFARE

22. Carefully conducted and dispassionate theoretical studies of the use of nuclear weapons in field warfare, including analyses of an extensive series of "war games" relating to the European theatre, have lead to the clear conclusion that this doctrine could lead to the use of hundreds, and not of tens, of so-called tactical nuclear weapons in the battlefield area, given that both sides resort to their use. Were nuclear weapons to be used in this way, they could lead to the devastation of the whole battle zone. Almost everything would be destroyed; forests would be razed to the ground and only the strongest buildings would escape total destruction. Fires would be raging everywhere. Circumstances such as these would be incompatible with the continued conduct of military operations within the zones of devastation.

23. An offensive on the scale to which all these studies point, over a land battle area with a front of, say, 250 km. and 50 km. deep, would render hundreds of thousands, even millions, homeless. Such a level of destruction could be achieved with only 100 small nuclear weapons in a European battle area chosen because it did not contain any large towns. With 400 weapons, which is not an unreasonably large number if both sides used nuclear weapons in a battle zone, the physical damage caused would correspond to something like six times that caused by all the bombing of the Second World War.

24. The destruction and disruption which would result from so-called tactical nuclear war would hardly differ from the effects of strategic war in the area concerned. The concept of escalation from tactical to strategic nuclear war could have no possible meaning in an area within which field warfare was being waged with nuclear weapons. This picture is not altered if one postulates so-called "clean" nuclear weapons, in place of those which formed the basis of the foregoing studies. Claims have been made about the possibilities of providing, for battlefield use, low yield weapons (say 1 to 10 kilotons) which would release an abnormally high proportion of their energy in blast and nuclear radiation, while producing virtually no radio-active fall-out. "Clean", in this context, is a matter of degree. These suggested weapons would basically rely on a fission reaction so that radio-active fall-out could never be completely avoided. In any case, the resulting chaos in the battlefield area referred to above was brought about, not by fall-out, but primarily through blast effects.

Interdiction targets

25. Were such weapons ever to be used in a war, it is also quite certain that they would not be restricted to the battle zone itself. It is part of the concept of tactical nuclear warfare that in a purely military campaign they would also be used outside the area of contact in order to impede the movement of enemy forces, the operation of air forces and so on. The objectives which would be attacked in order to achieve these effects are generally called interdiction targets. Theoretical studies of operations of this kind provide a picture of "deep" nuclear strikes whose effects would be hardly distinguishable from a strategic nuclear exchange in which both sides set out from the start to destroy each other's major centres of population.

DETERRENCE OF WAR

26. Nuclear weapons constitute one of the dominant facts of modern world politics. They are at present deployed in thousands by the nuclear weapon Powers, with warheads ranging from kilotons to megatons. We have already witnessed the experimental explosion of a fifty to sixty-megaton bomb, i.e., of a weapon with about 3,000 times the power of the bomb used in 1945 against Japan. Hundred-megaton devices, weapons about 5,000 times the size of those used in 1945, are no more difficult to devise. They could be exploded just outside the atmosphere of any country, in order utterly to destroy hundreds, even thousands, of square kilometres by means of blast and spreading fire.

27. The effects of all-out nuclear war, regardless of where it started, could not be confined to the Powers engaged in that war. They themselves would have to suffer the immediate kind of destruction and the immediate and more enduring lethal fall-out whose effects have already been described. But neighbouring countries, and even countries in parts of the world remote from the actual conflict, could soon become exposed to the hazards of radioactive fall-out precipitated at great distances from the explosion, after moving through the atmosphere as a vast cloud. The extent and nature of the hazard would depend upon the numbers and type of bombs exploded. Given a sufficient number, no part of the world would escape exposure to biologically significant levels of radiation. To a greater or lesser degree, a legacy of genetic damage could be incurred by the world's population.

28. It is to be expected that no major nuclear Power could attack another without provoking a nuclear counter-attack. It is even possible that an aggressor could suffer more in retaliation than the nuclear Power it first attacked. In this lies the concept of deterrence by the threat of nuclear destruction. Far from an all-out nuclear exchange being a rational action which could ever be justified by any set of conceivable political gains, it may be that no country would risk the resultant chaos which would leave in doubt a government's ability to remain in control of its people. But the fact that a state of mutual nuclear deterrence prevails between the Super Powers does not, as we know all too well, prevent

the outbreak of wars with conventional weapons involving both nuclear and non-nuclear weapon nations; the risk of nuclear war remains as long as there are nuclear weapons.

II. ECONOMIC IMPLICATIONS OF THE ACQUISITION AND FURTHER DEVELOPMENT OF NUCLEAR WEAPONS

GENERAL CONSIDERATIONS

29. Any given size of effort to develop nuclear weapons will have economic implications which differ according to the nuclear and industrial base from which the programme starts. Moreover, a penalty of the arms race is that no size of programme ever satisfies. Even if it became possible to set a limit to an arsenal of nuclear warheads, their delivery systems and the defence of their bases can absorb effort indefinitely.

30. The magnitude and timing of any programme depends on the base of the country's scientific, technical and industrial capability. Scientific and technical capability determines the country's ability to undertake the problems of:

a) Production of fissile and other material to meet the necessary strict specifications;

b) Warhead assembly and testing;

c) Development and control of the delivery vehicles, whether missile or aircraft units in an effective operating system.

It involves personnel represented by physicists, chemists, metallurgists, mathematicians, engineers, skilled machine tool operators, electricians, pipefitters, welders, sheet-metal workers, furance and chemical plant operators, instrument makers and fabricators.

31. Industrial capability is measured by the country's estabished experience in fields of advanced technology, such as nuclear energy, aviation, electronics and space technology.

32. In arriving at the cost figures presented below, countries possessing the above capabilities have been used as a basis, and it is therefore to be expected that costs would be considerably higher for countries which are less developed and have to devote major efforts to establishing these basic prerequisites.

33. The estimated costs, supported by some actual figures, for a first generation of simple nuclear warheads together with an unsophisticated delivery-vehicle system indicate that the acquisition of such a system may be within the reach of a number of nations. These cost figures, however, bear hardly any credibility as representing a limit lasting for any significant time, even for an industrialized country. The reasoning is that the need to develop less vulnerable and more sophisticated delivery systems seems certain to be felt in order to secure the military and political objectives of the force. It thus seems that the total costs of acquiring a nuclear weapons system over, say, ten years are liable under certain circumstances to be closer to the costs given for the French and United Kingdom systems up to 1969, namely, $8,000 million to $9,000 million than to the $1,700 million to $2,000 million derived below for an unsophisticated system. The cost of producing the weapons can probably be estimated with fair accuracy, at least in countries with developed peaceful nuclear activities. However, experience has shown that the major part of the cost of a nuclear force is that of the delivery systems and, in particular, of the missiles, and these are liable to very large overruns and continuing costly development.

BASIC COSTS OF NUCLEAR WARHEADS

34. The three fissile materials suitable for use as nuclear explosives are uranium-235, plutonium-239 and uranium-233. Uranium-233 is still rare, so its cost has not been considered here. A kilogramme of natural uranium contains seven grammes of uranium-235, while the main component is uranium-238. For use as a nuclear explosive the uranium-235 has to be separated and concentrated or "enriched" to 90-95 per cent of total uranium. The five nuclear weapons Powers have each established a capacity for producing highly enriched uranium-235. So far as is known only one process for uranium-235 isotope separation has been put into large-scale use. It is known as the gaseous diffusion process. This process requires large and costly plants based on an advanced technology which has not been fully disclosed. The total cost of the three United States plants was around $2,300 million, and the annual operating costs were estimated at from $500 million to $600 million. Some twenty-five kilogrammes of this material would be required for the production of one nuclear warhead with a yield in the twenty-kiloton range. Uranium-235 is preferred over plutonium for the production of thermonuclear weapons (H-bombs).

35. Plutonium-239 results from exposing uranium-238 to neutrons in a nuclear reactor. It is estimated that some eight kilogrammes of 95 per cent plutonium-239 would be needed for a nuclear warhead yielding a twenty-kiloton explosion. A complete plutonium-239 production complex would require plants for concentrating uranium ore, refining the uranium to high purity, and probably reducing it to metal ingot, and for fabricating reactor fuel, a nuclear reactor, a chemical plant for plutonium extraction and one for reducing plutonium to metal, together with numerous service facilities. For production complexes with capacities in the range of 8-160 kilogrammes of

weapons-grade plutonium per year, the capital costs would be in the range of $22-$87 million, and the annual operating costs $5-$10 million.

36. Considering the high cost of the gaseous diffusion plant for uranium-235, it would seem that a country planning to make only a small number of nuclear warheads per year would go to the plutonium type. This is particularly so if it has an established activity in the peaceful uses of nuclear energy, since plutonium is produced as a by-product in most nuclear reactors.

DESIGNING, MANUFACTURING AND TESTING

37. The amount of published information relating to warhead assembly and testing is severely limited by military secrecy. The capital investments in a factory for assembling 10 warheads per year would be about $8 million and annual operating costs about $1 million. The total costs of testing one twenty-kiloton device underground would amount to $12 million, and the costs of testing four such devices would amount to $15 million.

COSTS FOR VARIOUS WARHEADS PRODUCTION PROGRAMMES

Plutonium warheads production programme

38. Based on the estimated cost figures given for plutonium production and warhead design, manufacturing and testing, the total estimated costs of a small programme and a moderate programme are shown below in table 1.

TABLE 1. ESTIMATED COSTS FOR VARIOUS PLUTONIUM-BASED WARHEAD PRODUCTION PROGRAMMES

(In $US millions)

	Small programme (10X20-kiloton devices over ten years	Moderate programme (100X20-kiloton devices over ten years
Fissile material.....	70.0	151.0
Design and manufacture.....	18.0	18.0
Testing.....	12.0	15.0
Storage, maintenance.....	4.0	4.0
TOTAL	104.0	188.0
Annual average.....	11.0	19.0
Cost per warhead.....	11.0	1.9

Production programme including thermonuclear warheads

39. The escalation of the total warheads production costs resulting from the construction and operation of a diffusion plant for enriching uranium-235 and the development and testing of thermonuclear weapons is well demonstrated by the French example shown in table 2. The gaseous diffusion plant was built after 1960.

TABLE 2. COSTS OF TOTAL FRENCH NUCLEAR WARHEADS PROGRAMME

(In $US millions)

	Fissile material production	Design and manufacture	Testing	Total
To 1960.....	160	40	40	240
1960-1964.....	880	460	300	1,640
1965-1970.....	____	____	____	3,180
GRAND TOTAL	1,040 (to 1964)	500 (to 1964)	340 (to 1964)	5,060

Cost of delivery vehicles

40. The total delivery vehicle costs in most circumstances will be greater than the nuclear weapons costs. The accuracy with which delivery vehicle costs were predicted has been notoriously poor. Heavy overruns of expenditures have been the rule rather than the exception and have been concurrent with lengthy delays in the projected time-tables. The time needed to develop a delivery system depends on the existing industrial base and related experience and would, in most cases, take at least ten years for reasonably industrialized nations. Monetary costs do not, by themselves, give a realistic picture of the necessary effort in terms of over-all resources. A sizable technological base is needed to create and maintain a force of delivery vehicles. Even if major components can be purchased abroad, the delivery system must be integrated into a workable whole, and this process requires the skills of a number of qualified persons, which may even exceed the number needed for warhead production.

PROCUREMENT COSTS SUMMARY

Modest nuclear capacity

41. It will be assumed that a modest but significant nuclear armament would be represented by a force of from thirty to fifty jet bomber aircraft together with fifty-medium-range missiles of the 3,000-kilometre range in soft emplacements and 100 plutonium warheads. The sum of the costs estimated above for such a system acquired and deployed over ten years would be at least $1,700 million averaging $170 million per year.

Small, high-quality nuclear force

42. A hypothetical programme comprising two stages each of five years' duration has been envisaged. By the end of the first stage (1968-1972) a nuclear force of from ten to fifteen bombers and from fifteen to twenty nuclear weapons would be established, and during the second stage (1973-1977) the force would be extended to include from twenty to thirty thermonuclear weapons, 100 intermediate range missiles and two missile-launching nuclear submarines. The total costs of such a programme based on domestic industry and resources would amount to $5,600 million, corresponding to an average annual cost of $560 million for ten years. This hypothetical programme could be considered as a scaled-down version of the French programme. The cost estimate is considerably lower than the expenditures in France and the United Kingdom.

43. The actual annual costs of the nuclear forces in some countries are shown in table 3. The costs are also given relative to the annual defence budgets and the gross national product (GNP).

TABLE 3. ACTUAL COSTS OF NUCLEAR FORCES

Country	Period of time	Total costs (in $US millions)	Annual costs as percentage of	
			Military budget	GNP
France.....	1960-1964	2,400	13.0	0.7
	1965-1970	5,200	18.0	0.9
United Kingdom.....	1962-1963	480	10.0	0.7
	1965-1966	350	6.0	0.4
	1966-1967	300	5.0	0.3
USA.....	1962	13,200	26.4	2.4
	1963	12,100	23.3	2.1
	1964	11,200	21.1	1.8
	1965	8,200	16.8	1.3
	1966	8,200	14.6	1.2
	1967	8,400	12.1	1.2

ECONOMIC IMPLICATIONS

44. What has been defined as a modest nuclear armament requires not only a ten-year programme costing the equivalent of $US 170 million per year but resources of special kinds and quality. The basic ingredients would be raw materials, a corps of approximately 1,300 engineers and 500 scientists and a modern industrial base. Sophisticated delivery systems are equally demanding of high-quality materials and skills. For production of the intermediate-range ballistic missiles, estimates suggest that manpower requirements for technical and skilled personnel would rise higher than those for nuclear weapons. To produce over ten years and deploy fifty such missiles, it is estimated that a peak labour force of 19,000 men directly applied would be needed, over 5,000 of them scientists and engineers with access to high-speed electronic computers. The suggested fleet of fifty bombers would require a minimum of from 1 to 2 million man-hours of skilled and unskilled labour just to assemble. The design and development stage would absorb an additional 2 million or more engineering man-hours.

IMPLICATIONS OF EXPECTED GROWTH OF PLUTONIUM RESOURCES

45. There are two observations that we can make. First, that the cost of development of simple nuclear warheads is progressively decreasing as the technology involved is increasingly becoming public knowledge, and a new country can acoid the unprofitable directions which the countries that pioneered had to discover through costly experience. Second, that the large-scale development of nuclear power projects, resulting from a break-through in capital as well as operating costs, compared to conventional power stations, will make available a very large capacity of potential producers of weapons-grade plutonium. It is estimated that by 1980 there would be in the world more than 3×10^5 megawatts of nuclear power production. This would involve the production of plutonium sufficient for thousands of bombs each year.

III. SECURITY IMPLICATIONS OF THE ACQUISITION AND FURTHER DEVELOPMENT OF NUCLEAR WEAPONS

46. The effort to maintain a state of nuclear deterrence has demanded the expenditure of vast resources and, paradoxically, far from increasing the sense of security, has at times engendered a sense of insecurity. The opposing sides have taken, and continue to take, major steps to assure themselves that their nuclear warheads and delivery vehicles are proof against whatever countermeasures might be undertaken by the other side. These counter measures are essentially designed to increase the chances of a nuclear armoury surviving a pre-emptive nuclear assault by the other side and of nuclear weapons being able to penetrate whatever defences the other might deploy. The reciprocal technological development and sophistication of nuclear warheads and their associated weapons systems which thus results constitute a spirallying nuclear arms race.

THE CURRENT PROSPECT

47. So far as international security is concerned, it is highly probable that any further increase in the number of nuclear weapons States or any further elaboration of existing nuclear arsenals would lead to greater tension and greater instability in the world at large. Additional nuclear Powers accentuating regional tensions could only add to the complexity of the problem of assuring peace. Furthermore, it is impossible to deny the proposition that the danger of nuclear war breaking out through accident or miscalculation becomes greater, the larger the number of countries which deploy such weapons and the larger the stockpiles and the more diversified the weapons they hold.

48. The possibility of an increase in the number of countries acquiring a nuclear arsenal is attributable to different sets of motives. In some quarters the fact that the existing nuclear weapons Powers have so far failed to reach agreement either about stopping the further development or of freezing or reducing their own nuclear arsenals is regarded as an argument for the acquisition of nuclear weapons by other nations. In searching for greater security, some may also believe that if a state of mutual deterrence has been generated between the existing nuclear weapons Powers, a corresponding situation could be created between any other Powers who already possess the industrial and technological background necessary to make bombs. But against such views, it is worth noting that nowhere has the development of nuclear weapons made it possible to dispense either with troops on the ground or with conventional arms. Thus, the burden of an arms race with conventional weapons is compounded as soon as a nation embarks upon the path of acquiring nuclear weapons. Moreover, the insecurity which would be brought about by entering the nuclear arms race would make it imperative to improve continuously the sophistication of the nuclear weapons and their delivery systems, as well as measures for providing an early warning of an impending attack. The nuclear arms race demands immense technological and other resources and, of itself, creates conditions under which the economic progress of a nation could stagnate. Again, the acquisition by any nation of nuclear weapons could also trigger a change in its international relations. Non-nuclear neighbours could be tempted to acquire nuclear weapons, or they might perhaps undertake immediate preventive military action. Similarily, the existing nuclear Powers might react by countermeasures and/or attempts to strengther their own position in the region and thereby intensify their own arms race. Nuclear weapons nations are also faced with the problems of establishing systems of control of nuclear weapons within their own borders. Not only must there be protection against misuse; the tensions which would exist if serious civil strife were to occur in a nation that possessed nuclear weapons would be greatly intensified. If these problems are not adequately solved, there are added risks to the security of that nation and to the world as a whole.

49. Clearly any arms race absords resources which might otherwise be used to improve standards of living. The struggle to improve living conditions is most effectively pursued when advanced technological products are freely exchanged between countries. This process is hindered by the mutual fears and suspicions associated with an arms race.

THE ISSUE OF TACTICAL WEAPONS

50. A second motive additional to the search for "security through deterrence" which might encourage proliferation is the view that nuclear weapons constitute a form of armament superior to conventional weapons in field warfare. However, it is hardly likely that a non-nuclear-weapons country, living in a state of hostility with a neighbour, could start to furnish itself with a nuclear arsenal without either driving its neighbour to do the same or to seek protection in some form or other, explicit or implicit, from an existing nuclear weapons Power or Powers. Equally, if in the pursuit of its political objectives, one of two sides, both of which possessed and deployed nuclear weapons, were to have the will to initiate the use of its weapons, it is difficult to see how a nuclear engagement could be stopped once it had started. From what has been said in section I of the report, it is clear that, given that both sides to a conflict deploy nuclear weapons, it is highly debatable whether there are any circumstances of land warfare in which such weapons could be used as battlefield weapons or, if they were so used, would confer any military advantage to either side in the zone of contact. Whatever significance can be attributed to tactical nuclear weapons is to be found essentially in the concept of deterrence.

NUCLEAR WEAPONS IN THE POLITICAL CONTEXT

51. The third argument which is sometimes advanced in favour of the acquisition of nuclear weapons is that doing so promotes political independence, enhances national prestige and thus a country's influence on the international scene. A contrary view is that the influence of certain Powers in international affairs would be the same whether or not they possessed nuclear weapons. The issue of prestige is equally debatable. Undoubtedly, there may for a short time be some imponderable element of prestige in the manifestation of the technological prowess which is implied by the development of nuclear weapons. But this prestige is a mixed blessing and could rapidly generate those deleterious reactions on the part of neighbouring States to which reference has been made in a preceding paragraph.

52. When one asks whether or not the acquisition and further development of nuclear weapons increases security, one thus ends up with two very simple questions. The first is what, in fact, have nuclear weapons contributed so far to military power? In so far as this question can be answered, the reply can only be that while the state of mutual deterrence which prevails between the two super Powers has helped to avert any head-on conflict between them, it has not made it possible for either to reduce its military expenditures in general or to neglect the effectiveness of its conventional armoury in particular. In a smaller way, the same conclusion applied to both the United Kingdom and France.

53. At the same time, profound limitations clearly exist in the possible use of these weapons. The consequences of their employment either in all-out war or in field warfare would be so disastrous to both sides that it is very difficult to conceive of circumstances in which they could be used. Where two sides possess such weapons, it is totally unrealistic to suppose that one

could use them in a military conflict without provoking retaliation by the other. Once retaliation had occurred, it is also difficult to suppose that a nuclear conflict would not escalate in intensity. The situation might, of course, be totally different if only one side to a localized conflict possessed nuclear weapons. But since the end of the Second World War, no nuclear weapons State has been able to derive any immediate military advantage from the possession of nuclear weapons, let alone use them to gain an easy victory. In fact, the possession of nuclear forces does not necessarily prevent a decline in political influence. Were the acquisition and maintenance of a nuclear arsenal to impose a major economic and technological burden on a country, it is possible that possession of such an arsenal would be associated with a reduction, and not with an increase, in both the national security and political influence of the country concerned.

CONCLUSION

54. The solution of the problem of ensuring security cannot be found in an increase in the number of States possessing nuclear weapons or, indeed, in the retention of nuclear weapons by the Powers currently possessing them. An agreement to prevent the spread of nuclear weapons as recommended by the United Nations, freely negotiated and genuinely observed, would therefore be a powerful step in the right direction, as would also an agreement on the reduction of existing nuclear arsenals.

55. A comprehensive test ban treaty, prohibiting the underground testing of nuclear devices, would also contribute to the objectives of non-proliferation and would clearly help to slow down the nuclear arms race. So would effective measures safeguarding the security of non-nuclear countries. Nuclear-weapon-free zones additional to those of Antarctic and Latim America would equally be of major assistance. These measures are mentioned neither to argue the case for them nor to set them in any order of priority. Any one of them, or any combination of them could help inhibit the further multiplication of nuclear weapons Powers or the further elaboration of existing nuclear arsenals and so help to ensure national and world security. But it must be realized that these measures of arms limitation, however desirable, cannot of themselves eliminate the threat of nuclear conflict. They should be regarded not as ends sufficient in themselves but only as measures which could lead to the reduction of the level of nuclear armaments and the lessening of tension in the world and the eventual elimination of nuclear armaments. All countries have a clear interest in the evolution of a world which allows of peaceful and stable coexistence. Non-nuclear weapon countries, as well as those which possess nuclear weapons, need to work in concert, creating conditions in which there should be free access to materials, equipment and information for achieving all the peaceful benefits of atomic energy, and for promoting international security.

56. International agreement against the further proliferation of nuclear weapons and agreements on measures of arms control and disarmament will promote the security of all countries. The United Nations has the overriding responsibility in this field. The more effective it becomes in action, the more powerful its authority, the greater becomes the assurance for man's future.

CHEMICAL AND BACTERIOLOGICAL (BIOLOGICAL) WEAPONS AND THE EFFECTS OF THEIR POSSIBLE USE

(A/7575/Rev.1, S/9292/Rev.1)

INTRODUCTION

1. In accordance with General Assembly resolution 2454 A (XXIII) the Secretary-General was asked to prepare, with the assistance of qualified consultant experts, a report on chemical and bacteriological (biological) weapons and on the effects of their possible use.

2. No form of warfare has been more condemned than has the use of this category of weapons. The fear today is that the scientific and technological advances of the past few decades have increased the potential of chemical and bacteriological (biological) weapons to such an extent that one can conceive of their use causing casualties on a scale greater than one would associate with conventional warfare. At the moment most of our knowledge concerning the use of chemical weapons is based upon the experience of the First World War. According to official reports gas casualties numbered about 1,300,000 of which about 100,000 were fatal. The agents used in that war were much less toxic than those, in particular nerve agents, which could be used today, and they were dispersed by means of relatively primitive equipment as compared with what is now available.

3. It is true that a considerable effort has also been made to develop chemical agents which have as their purpose not to kill but to reduce a man's capacity to fight. Such agents are used by civil authorities of a number of countries in order to suppress disorders and to control riots, but when used in warfare they would inevitably be employed as an adjunct to other forms of attack, and their over-all effect might be lethal.

4. Since the Second World War, bacteriological (biological) weapons have also become an increasing possibility. But because there is no clear evidence that these agents have ever been used as modern military weapons, discussions of their characteristics and potential threat have to draw heavily upon experimental field and laboratory data and on studies of naturally occurring outbreaks and epidemics of infectious disease, rather than on direct battlefield experience.

5. The greater threat posed by chemical weapons today derives from the discovery and manufacture of new, more toxic compounds. On the other hand, bacteriological (biological) agents already exist in nature and can be selected for use in warfare. Some of these agents have been known for several decades, but there is a vast number of other possible agents, especially viruses, which have been discovered only recently. Increases in potency of these various types of agent have been made possible by scientific and technological advances in microbial genetics, experimental pathology and aerobiology.

6. As is well known, the use of toxic gases in the First World War generated so powerful a sense of outrage that countries were encouraged to adopt measures prohibiting both chemical and bacteriological (biological) weapons. The result was the Geneva Protocol of 17 June 1925, which prohibits the use in war of asphyxiating, poisonous or other gases and of all analogous liquids, materials or devices, as well as bacteriological methods of warfare. This established a custom and hence a standard of international law, and in practice most States have adhered to the principle that no one should resort to the use of such weapons.

7. It is simple to appreciate the resurgence of interest in the problems of chemical and bacteriological (biological) warfare. Advances in chemical and biological science, while contributing to the good of mankind, have also opened up the possibility of exploiting the idea of chemical and bacteriological (biological) warfare weapons and the situation will remain threatening so long as a number of States proceed with their development, production and stockpiling.

8. As the present report shows, the outstanding characteristics of this class of weapons, particularly bacteriological (biological) weapons, is the variability, amounting under some circumstances to unpredictability, of their effects. Depending on environmental and meteorological conditions, and depending on the particular agent used, the effects might be devastating or negligible. They might bear not only on those attacked but on those who initiated their use, whether or not the attacked military forces retaliated in kind. Civilians would be even more vulnerable than the military. The development, acquisition and deployment of chemical and bacteriological (biological) weapons constitutes a real economic burden which varies in extent for different countries. Above all, their acquisition could not possibly obviate the need for other weapons.

9. It would be enormously costly in resources, and administratively all but impossible, to organize adequate protection for a civilian population against the range of possible chemical agents. Even military personnel would be unlikely to escape the wider-spread and longer-term effects on their country at large.

10. To appreciate the risks that bacteriological (biological) warfare could entail, one has only to remember how a natural epidemic may persist unpredictably, and spread far beyond the initial area of incidence, even when the most up-to-date medical resources are used to suppress the outbreak. The difficulties would be considerably increased were deliberate efforts made, for military reasons, to propagate pathogenic organisms. Mass disease, following an attack, especially of civilian population, could be expected not only because of the lack of timely warning of the danger but because effective measures of protection or treatment simply do not exist or cannot be provided on an adequate scale.

11. Once the door was opened to this kind of warfare, escalation would in all likelihood occur, and no one could say where the process would end. Thus the report concludes that the existence of chemical and bacteriological (biological) weapons contributes to international tension and that their further development spurs the arms race without contributing to the security of any nation.

Chapter I

THE BASIC CHARACTERISITICS OF CHEMICAL AND BACTERIOLOGICAL (BIOLOGICAL) MEANS OF WARFARE

12. Since World War I the variety and potency of chemical and bacteriological (biological) weapons has grown steadily, and there has been a corresponding increase in the capacity to deliver them to a target area. The most significant result of these technical developments is the great variety of injurious effect which these agents can induce and the consequent increase in the number and types of situation in which there might be a temptation to use them for military purposes.

A. Characteristics of chemical and bacteriological (biological) weapons

13. For the purposes of this report, chemical agents of warfare are taken to be chemical substances, whether gaseous, liquid or solid, which might be employed because of their direct toxic effects on man, animals and plants. Bacteriological (biological) agents of warfare are living organisms, whatever their nature, or infective material derived from them, which are intended to cause disease or death in man, animals or plants, and which depend for their effects on their ability to multiply in the person, animal or plant attacked.

14. Various living organisms (e.g. rickettsiae, viruses and fungi), as well as bacteria, can be used as weapons. In the context of warfare all these are generally recognized as "bacteriological weapons". But in order to eliminate any possible ambiguity, the phrase "bacteriological (biological) weapons" has been used throughout to comprehend all forms of biological warfare.

15. All biological processes depend upon chemical or physico-chemical reactions, and what may be regarded today as a biological agent could, tomorrow, as knowledge advances, be treated as chemical. Because they themselves do not multiply, toxins, which are produced by living organisams, are treated in this report as chemical substances. We also recognize that there is a dividing line between chemical agents of warfare, in the sense in which we use the terms, and incendiary substances, such as napalm and smoke, which exercise their effects through fire, temporary deprivation of air or reduced visibility.

16. Finally, we recognize that both chemical and bacteriological (biological) agents are designated either as lethal agents, that is to say, agents which are intended to kill, or as incapacitating agents, that is to say, agents which are intended to cause disability. These terms are not absolute but imply statistical probabilities of response which are more uncertain with bacteriological (biological) than with chemical agents. Not all individuals will die from an attack with a given lethal agent, whereas some, for example, infants and people weakened by malnutrition, disease or old age might succumb to an attack with incapacitating chemical or bacteriological (biological) agents. With a few chemical agents, notably some tear gases (lachrymators), there is a negligible probability of any fatal outcome, and these have been used to quell riots and civil disorders (riot-control agents), as well as in warfare as harassing agents, in order to enhance the effectiveness of conventional weapons or to facilitate the capture of enemy personnel.

1. DIFFERENCES BETWEEN CHEMICAL AND BACTERIOLOGICAL (BIOLOGICAL) WARFARE

17. Although there are some similarities between chemical and bacteriological (biological) agents regarded as weapons of war, they differ in certain important respects. These differences are related to: Potential toxicity.

18. Although more toxic than most well-known industrial chemicals, chemical warfare agents are far less potent on a weight-for-weight basis than are bacteriological (biological) agents. This difference reflects the fact that bacteriological (biological) agents, being alive, can multiply. For the same reason, they also are very much more susceptible to sunlight, temperature and other environmental factors than are chemical agents. A bacteriological (biological) agent disseminated into a given environment may retain its viability while losing its virulence.

Speed of action

19. As a class, chemical agents produce their injurious effects in man, animals or plants more rapidly than do bacteriological (biological) agents. The time between exposure and significant effect may be minutes, or even seconds, for highly toxic gases or irritating vapours. On the other hand, a bacteriological (biological) agent must multiply in the body of the victim before disease (or injury) supervenes; this is the familiar "incubation period" of a disease.

Duration of effect

20. The effects of most chemical agents which do not kill quickly do not last long, except in the case of some agents, such as phosgene and mustard, where they might continue for some weeks, months or longer. On the other hand, bacteriological (biological) agents which are not quickly lethal cause illness lasting days or even weeks and, on occasion, involve periods of prolonged convalescence.

Specificity

21. Although both classes of agents can be used to attack man, animals or plants, individual biological agents, in general have a much greater degree of host specificity. Influenza, for example, is essentially a disease of man and rice blast is a disease confined to rice only. Chemical agents are much less specific: nerve agents can affect mammals, birds and invertebrates.

Controllability

22. By controllability is meant the ability to predict the extent and nature of the damage which chemical and bacteriological (biological) agents can cause. The most likely means of delivering chemical and bacteriological (biological) agents is by discharge into the atmosphere. Control is thus possible only to the extent that the meteorological situation can be predicted.

23. Because they infect living organisms, some bacteriological (biological) agents can be carried by travellers, migratory birds or animals to localities far from the area originally attacked. The possibility of this kind of spread does not apply to chemical agents. But control of contamination by persistent chemical agents could be very difficult. Should large quantities of chemical agents penetrate the soil and reach underground waters, or should they contaminate reservoirs, they might spread hundreds of kilometres from the area of attack.

Residual effects

24. In circumstances which favour their persistence herbicides, defoliants and perhaps some other chemical agents might linger for months, stunting the growth of surviving or subsequent plant life. The risk of residual effects with some bacteriological (biological) agents is potentially greater, mainly because they could lead to disease, which might become epidemic.

2. TECHNOLOGY OF CHEMICAL AND BACTERIOLOGICAL (BIOLOGICAL) WARFARE

25. The technological problems associated with chemical and bacteriological (biological) warfare are of two kinds: (a) those associated with the production of the agents and the weapons needed for their dissemination and (b) those which concern the provision of the protective equipment and defences necessary to protect military forces and civilian populations. Any nation whose chemical, pharmaceutical and fermentation industries are well advanced could produce chemical and bacteriological (biological) agents on a scale commensurate with its other military capabilities. The problems which relate to defence are far more difficult, for as with most weapons, effective defence calls for much more stringent training and demands far more manpower and monetary resources than does the offence.

3. CHEMICAL AND BACTERIOLOGICAL (BIOLOGICAL) WEAPON SYSTEMS

26. The use in warfare, and the possible military effectiveness, of chemical and bacteriological (biological) agents need to be considered in the context of the weapon systems of which they would be part. A weapon system comprises all the equipment and personnel, as well as the organizational structure, required to maintain and operate a military device. Artillery shells filled with mustard gas or nerve agents and guns to fire them, or an aircraft with a spray tank filled with a bacteriological (biological) agent, are not by themselves weapon systems. Many complex technological problems have to be overcome in transforming a chemical or bacteriological (biological) "agent" into a "weapon system". A "weapon" is of little military value if it is not dependable and if it cannot be delivered to a target with certainty.

27. In addition, considerations affecting defence need to be taken into account. Masks, protective clothing, detection alarms, special medical supplies, augmented logistic facilities and, above all, thoroughly trained military and civilian personnel are necessary parts of chemical and bacteriological (biological) weapon systems. Although chemical and bacteriological (biological) weapon systems are cheaper and more readily attained than nuclear weapons, they are highly complex systems which call for sizable resources and considerable expertise for their development and operation. But the possibility always exists that by choosing a single agent and a simple means of delivery a nation could equip itself relatively cheaply to attack a limited area with a reasonable chance of success.

B. Concepts of the use of chemical and bacteriological (biological) weapons in war

1. CHEMICAL WEAPONS

28. Chemical weapons could be used within the zone of contact of opposing forces or against military targets, or against targets which have no immediate connexion with military operations, such as centres of population, farm land and water supplies. The circumstances in which they could be used within a zone of contact are many and varied. Whether or not in the battle-area, civilians might become casualties. The risk of civilian casualties would obviously be greater if chemical attacks were made on military targets well in the rear of the zone of contact and would be very serious in the case of attacks on centres of population.

2. BACTERIOLOGICAL (BIOLOGICAL) WEAPONS

29. There is no military experience of the use of bacteriological (biological) agents as weapons of war, and the feasibility of using them as such has often been questioned. Some recent investigations under field conditions throw light on this point. In one field trial, a harmless powder was disseminated from a ship travelling 16 kilometres off shore.

The resulting aerosol travelled at least 750 kilometre and covered an area of over 75,000 square kilometres. This observation provides an indication of the size of area which might be covered by a windborne aerosol, but it does not tell whether the bacteriological (biological) agents which might be spread in an aerosol would still retain their virulence.

30. However, some idea of the relative size of areas which can be covered by bacteriological (biological) and chemical aerosols can be gained from this same experiment. Depending on the bacterial or viral agent and its degree of hardiness, areas of from 5,000 to 20,000 km^2 could have been effectively attacked, infecting a high proportion of unprotected people in the area. If the same means are applied to a hypothetical chemical attack using the most toxic chemical nerve agent, the downwind hazard from this would not have extended more than one kilometre, and probably less, unless meteorological conditions were extremely favourable. The area covered by such a chemical attack might thus have been from 50 to 150 km^2.

31. For purposes of sabotage or covert (secret, as in sabotage actions behind enemy lines) operations, small aerosol generators for bacteriological (biological) agents could be built, for example, into fountain pens or cigarette lighters.

C. Chemical and bacteriological (biological) agents

1. CHEMICAL AGENTS

32. Chemical agents are usually described in terms of their physiological effects and are characterized as follows:

Agents affecting man and animals

33. Nerve agents are colourless, odourless, tasteless chemicals of the same family as organophosphorus insecticides. They poison the nervous system and disrupt vital body functions. They constitute the most modern war chemicals known; they kill quickly and are more potent than are any other chemical agents (except toxins).

34. Blister agents (vesicants) are oily liquids which, in the main, burn and blister the skin within hours after exposure. But they also have general toxic effects. Blister agents caused more casualties than any other chemical agent used in the First World War.

35. Choking agents are highly volatile liquids which, when breathed as gases, irritate and severely injure the lungs, causing death from choking. They were introduced in the First World War and are of much lower potency than the nerve agents.

36. Blood agents are also intended to enter the body through the respiratory tract. They produce death by interfering with the utilization of oxygen by the tissues. They, too, are much less toxic than nerve agents.

37. Toxins are biologically produced chemical substances which are very highly toxic and may act by ingestion or inhalation.

38. Tear and harassing gases are sensory irritants which cause a temporary flow of tears, irritation of the skin and respiratory tract and, occasionally, nausea and vomiting. They have been widely used as riot-control agents and also in war.

39. Psycho-chemicals are drug-like chemicals intended to cause temporary mental disturbances.

Agents affecting plants

40. Herbicides (defoliants) are agricultural chemicals which poison or dessicate the leaves of plants, causing them to lose their leaves or ide. Some herbicides, particularly those containing organic arsenic, are also toxic for man and animals.

Methods of delivery

41. Chemical munitions are designed to fulfil three objectives: (a) to provide a container for the agent so that the agent/munition combination can be delivered to its target; (b) to attain an effective distribution of agent over the target area; and (c) to release the agent in active form. In the case of incapacitating and riot-control agents, it is necessary that the munition itself should not cause injury or death and that it should not start fires. The munitions to be used would depend on the method of delivery, the shape and size of the target area and other variables. Ground-to-ground munitions include grenades, shells, rockets and missile war-heads; air-to-ground munitions include large bombs, dispensers, spray tanks and rockets; emplaced munitions include generators and mines.

2. BACTERIOLOGICAL (BIOLOGICAL) AGENTS

42. Like chemical agents, bacteriological (biological) agents may also be classified in terms of their intended use, whether designed to incapacitate or kill human beings, to incapacitate or kill food and draught animals or to destroy food plants and industrial crops.

43. Bacteria, viruses, fungi and a group of microbes known as rickettsiae are by far the most potent agents which could be incorporated into weapon systems.

The selection of agents for use in warfare

44. The bacteriological (biological) agents which could potentially be used in warfare are far fewer than those which cause naturally occurring disease. To be effective for this purpose they should:

(a) be able to be produced in quantity;

(b) be capable of ready dissemination in the face of adverse environmental factors;

(c) be effective regardless of medical counter-measures;

(d) be able to cause a large number of casualties.

Agents affecting man

45. All the diseases under consideration occur naturally, and the causative organisms, with few exceptions, are known to scientists throughtout the world. Incapacitating agents are those which, in natural outbreaks, cause illness but rarely death. If the natural disease has an applicable mortality, the agent is regarded as a lethal one. Different populations have varying degrees of resistance to the diseases produced by bacteriological (biological) agents. An infectious disease which might be only mildly incapacitating in one population might prove disastrous to another, for example, as a result of malnutrition. Conversely, a weapon which was intended to spread a lethal disease might only cause occasional mild illness in people who had been given a protective vaccine or who had become immune as a result of natural infection.

46. Viruses are the smallest forms of life. Most of them can be seen only with the electron microscope and must be grown on living tissue (tissue cultures, fertile eggs, etc.).

47. Rickettsiae are intermediate between the viruses and bacteria. Like the viruses, they grow only in living tissue.

48. Bacteria are larger than viruses and can be easily grown on a large scale employing equipment and processes similar to those used in the fermentation industry; but special skills and experience would be needed to grow them in quantity in the particular state in which they readily cause disease.

49. Fungi also produce a number of diseases in man, but very few species appear to have any potential in bacteriological (biological) warfare.

Agents affecting animals

50. Bacteriological (biological) anti-animal agents, such as foot-and-mouth disease and anthrax, would be used primarily to destroy domestic

animals, thereby indirectly affecting man by reducing his food supply. Outbreaks of contagious disease in animal populations, known as epizootics, may spread much more readily than do epidemics among human beings. Most of the bacterial diseases of animals which could probably be used in warfare are also transmissible to man.

Agents affecting plants

51. The natural occurrence of devastating plant diseases has suggested that plant pathogens might be used for military purposes.

Methods of delivery

52. Bacteriological (biological) agents can, in principle, be loaded into the same type of munitions as can chemical agents. Other than for convert or "special-purpose missions", bacteriological (biological) weapons, if developed for military purposes, would in all probability be delivered by aircraft or by large ballistic missiles.

53. If bacteriological (biological) warfare ever occurred, the aerosol technique would be the one most likely to be used, simply because the respiratory tract is normally susceptible to infection by many micro-organisms, because of the wide target area which could be covered in a single attack and because ordinary hygienic measures are ineffective in preventing the airborne route of attack.

D. Defence of man against chemical and bacteriological (biological) agents

54. A comprehensive defensive system against attacks by chemical or bacteriological (biological) agents would necessitate a very effective organization manned by well-trained personnel. Although military units and small groups of people could be equipped and trained to protect themselves to a significant extent, it would be impracticable for most (if not all) countries to provide comprehensive protection for their entire civil population.

1. MEDICAL PROTECTION

Chemical attacks

55. No general prophylactic treatment exists which could protect against chemical attacks.

Bacteriological (biological) attacks

56. Vaccination is the only useful means available for prophylaxis against bacteriological (biological) attacks. It is probable, however, that even those existing vaccines which are effective in preventing natural infectious diseases might afford only limited protection against respiratory infection by an agent disseminated into the air in large

amounts by a bacteriological (biological) weapon. Moreover, whole populations could not be vaccinated against all possible diseases.

2. DETECTION AND WARNING

57. The requirement is to detect a cloud of a chemical or a bacteriological (biological) agent in the air sufficiently quickly for masks and protective clothing to be donned before the attack can be effective. There are also requirements for the detection of ground contamination with chemical agents and for detection equipment to enable those under attack to decide when it would be safe to remove their protective equipment.

Chemical attacks

58. In the First World War it was possible to rely upon odour and colour as the primary means of alerting personnel that a chemical attack had been launched. The newer, more toxic chemical agents cannot be detected in this way. On the other hand, presumptive evidence that such weapons had been used would be of value as warning. Once an enemy had used chemical weapons, each subsequent attack would necessarily have to be presumed to be a possible chemical attack. Individuals would have to mask whenever any bombardment occurred. Because of the uncertainty, however, it would be clearly desirable to devise and provide a system of instruments which could detect the presence of toxic chemicals and give timely and accurate warning of a chemical attack. It must be recognized that in spite of instrumental warning systems, personnel near the point of dissemination of a chemical agent might still not have sufficient time to take protective action.

Bacteriological (biological) attacks

59. Unlike chemical weapons, bacteriological (biological) weapons cannot readily be distinguished from the biological "background" of the environment by specific chemical or physical reactions, and much lower aerosol concentrations of bacteriological (biological) agents are more dangerous than of chemical agents. The problem of early detection and warning is thus even more difficult than for chemical weapons.

3. PHYSICAL PROTECTION

60. The primary objective is to establish a physical barrier between the body and the chemical and bacteriological (biological) agents and, especially, to protect the skin and the respiratory tract. Without this no warning system, however effective, has the slightest value.

Individual protection

61. Protective masks are the first line of defence against all chemical and bacteriological (biological) agents. Since mustard gases and the nerve agents of low or intermediate volatility can penetrate the

unbroken skin, even through normal clothing, the whole body surface must be protected by some form of special clothing. Together with a mask, protective clothing, properly worn and in good condition, will afford excellent protection against known chemical and bacteriological (biological) agents.

Collective or communal protection

62. Collective protection takes the form of fixed or mobile shelters capable of accommodating groups of people and has been devised not only for civilians but for special groups of military personnel (e.g., command posts, field hospitals). Collective protection is the most effective physical means of protection against all forms of attack.

63. Once a bacteriological (biological) attack had been suspected or detected, it would be necessary to identify the specific agents involved so that proper protective measures could be taken and treatment planned. At present the only means of identifying specific micro-organisms is by normal laboratory procedures. However, laboratory identification of biological agents is still a complicated and unsatisfactory process.

4. DECONTAMINATION

Chemical agents

64. Prolonged exposure to weather and sunlight reduces or eliminates the danger of most chemical agents. But in general, it would be essential to resort to decontamination immediately after an attack. Unless food had been stored in metal cans or other containers which were impermeable to chemical agents, it would have to be destroyed. Decontamination of complex equipment and vehicles is a difficult and time-consuming procedure. Decontamination might even need to be extended to roads and selected areas. This would involve the removal of contaminated soil by bulldozing or by covering it with earth, using explosives to spread a powdered decontaminant over a wide area.

Bacteriological (biological) agents

65. Decontamination procedures for biological agents are similar to those used for toxic chemical agents.

E. Protection of domestic animals and plants against chemical and bacteriological (biological) attacks

66. The widespread protection of domestic animals and plants from chemical attack would be impracticable.

Animals

67. Animals or flocks could be protected by collective shelters although the cost would be great and, in the absence of automatic warning devices, it would be impossible to assure that the creatures would be sheltered at the time of attack. The ideal means of protection for animals would be vaccination.

Plants

68. The only hopeful approach would be to breed disease-resistant plants. But unless the exact identity of the bacteriological (biological) agent which might be used were known well in advance (possibly years), it would not be feasible to apply this principle to provide protection to crops against this kind of attack.

Chapter II

THE PROBABLE EFFECTS OF CHEMICAL AND BACTERIOLOGICAL (BIOLOGICAL) WEAPONS ON MILITARY AND CIVILIAN PERSONNEL, BOTH PROTECTED AND UNPROTECTED

A. The effects of chemical agents on individuals and populations

69. The effects of chemical warfare agents on humans, animals and plants depend on the toxic properties of the agent, the dose absorbed, the rate of absorption and the route by which the agent enters the organism. Toxic agents may enter the body through the skin, the eyes, the lungs or the gastro-intestinal tract (as a result of eating contaminated food or drinking contaminated liquids). Protective masks, protective clothing, and shelters and, to a certain extent, decontamination when applicable, give substantial protection against all chemical warfare agents. But, as already emphasized, the mere possession of a means of protection by no means constitutes an absolute safeguard against contamination by poisons. Since protective measures are most effective when performed by trained personnel working in units, military personnel are more likely to be provided with adequate protection than a civilian population. In any event, the civilian population in most countries is simply not provided with protection against chemical warfare.

70. The effects of the more lethal modern chemical weapons have not been studied under conditions of actual warfare. Furthermore, no complete and systematic field studies of the use of defoliants, herbicides and riot-control agents are available. The following descriptions of the probable effects of chemical weapons, based both on evidence and on technical judgement, must therefore be regarded as somewhat conjectural.

1. EFFECTS OF LETHAL CHEMICAL AGENTS ON INDIVIDUALS

71. Lethal chemical agents kill in relatively small doses, and as a rule the amount that causes death is only slightly greater than that which causes incapacitation. Death may occasionally be caused by high doses of presumed incapacitating agents, and, conversely, minor effects could be caused by low doses of lethal agents.

Nerve agents

72. These lethal compounds are readily absorbed through the lungs,

eyes, skin and intestinal tract without producing local irritation, and they interfere with the action of an enzyme (cholinesterase) essential to the functioning of the nervous system. The nerve-agent casualty who has been exposed to a lethal dose will die of asphyxiation within a few minutes if he is not treated swiftly by means of artificial respiration and drugs, such as atropine or oximes. Otherwise recovery is generally rapid and complete. It is estimated that the most toxic nerve gases may cause death at a dosage of about 10 mg min/m^3. A dosage of one mg min/m^3 consists of an exposure for one minute to gas at a concentration of one milligrame per cubic metre. Less toxic ones are lethal at dosages of up to 400 mg min/m^3.

Blister agents

73. Mustard is a typical blister agent which, like other members of this class, also has general toxic effects. Blistering with mustard is comparable to second-degree burns. More severe lesions, comparable to third-degree burns, may last for a couple of months. Blindness may be caused.

Other lethal agents

74. Phosgene and compounds with similar physiological effects were used in the First World War. Death results from damage to the lungs.

75. Hydrogen cyanide in lethal doses causes almost immediate death by inhibiting cell respiration.

76. Most of the so-called blood agents contain cyanide, and all act rapidly. The casualty would either die before therapy could begin or recover soon after breathing fresh air.

77. Botulinum toxin is one of the most powerful natural poisons known and could be used as a chemical warfare agent. The bacteria do not grow or reproduce in the body, and poisoning is due entirely to the toxin ingested. Respiratory paralysis is the usual cause of death.

2. EFFECTS OF LETHAL AGENTS ON POPULATIONS

78. As already indicated, the possible effects of an attack on populations with lethal chemical warfare agents would depend upon the agent used, upon the intensity of the attack, whether the population was mainly under cover or in the open, on the availability of protective facilities, on the physiological state of the individuals affected and on the meteorological conditions, which might differ from what had been predicted and alter during the course of an attack.

Effects of nerve gas on protected troops in combat

79. To counter a heavy attack with air-burst munitions, protective measures of a very high order of efficiency, including protective masks,

light protective clothing, means for decontamination, detection systems, antidotes and medical care, would have to be available. Protective clothing and rapid utilization of gas masks would give a certain measure of protection. But in this case, subsequent decontamination and medical care would be necessary to avoid heavy lethal losses.

Effects of nerve gas on a military target in the rear

80. After an attack in which tons of Sarin were used against an area of one square kilometre, the impact area and the area immediately downwind from it would be highly lethal to all unprotected personnel. The distance between the impact area and the area of lowest effective dosage would rarely exceed a few tens of kilometres. Personnel provided only with gas masks, but not wearing them at the moment of the attack, would suffer substantial losses in and close to the impact area. Further downwind, masks would give essentially complete protection if warning were provided reasonably quickly.

Effects of a nerve gas attack on a town

81. Given a town with a total population of 80,000, a surprise attack with nerve gas could cause 40,000 casualties, half of them fatal, whereas under ideal circumstances for the defence, fatalities might number no more than 2,000. It is inconceivable, however, that the ideal would ever be attained.

3. EFFECTS OF INCAPACITATING CHEMICAL AGENTS

82. Incapacitating chemicals, like tear gases and certain psychochemicals, produce in normal healthy people a temporary, reversible disability with few, if any, permanent effects. In young children, old people and those with impaired health, the effects may sometimes be aggravated.

Tear and harassing gases

83. Either as vapour or in aerosol, tear and harassing gases rapidly produce irritation, smarting and tears. These symptoms disappear quickly after exposure ceases. The entire respiratory tract may also be irritated, resulting in a running nose and pain in the nose and throat. The toxicity of these gases varies in different animal species and in different environmental conditions.

Toxins

Staphylococcus toxin occurs naturally in outbreaks of food poisoning, which is the only medical experience with this toxin. The time from ingestion of the toxin to the onset of symptoms is usually two to four hours, although it may be as short as half an hour. Most people recover in 24-48 hours, and death is rare.

Psychochemicals

85. These substances have been suggested for use in war as agents, which could cause temporary disability by disrupting normal patterns of behaviour. The idea cannot be accepted in its simple form, inasmuch as these substances may lead to more permanent changes, particularly in individuals who are mentally unbalanced or in the early stages of a nervous or mental disease. Moreover, very high doses, which would be difficult to exclude during use in war, can cause irreversible damage to the central nervous system or even death. Psychochemicals could also have particularly severe effects on children.

86. It is extremely difficult to predict the effects which an attack with psychochemical agents would produce in a large population. Apart from the complication of the varying reaction of exposed individuals, there could be strange interactions within groups. Inasmuch as the probability of fatal casualties resulting directly from exposure is low, some normal group activity might be sustained.

4. OTHER EFFECTS OF CHEMICAL AGENTS

Effects on animals

87. The effects of lethal chemical agents on higher animals are, in general, similar to those on man.

Effects on plants

88. A variety of chemicals kill plants, but little is known about their long-term effects. The duration of effect usually lasts weeks or months Some chemicals kill all plants indiscriminately; others are selective.

B. The effect of bacteriological (biological) agents on individuals and populations

89. As stated previously, mankind has been spared any experience of modern bacteriological (biological) warfare, so that any discussion of its possible nature has to be based on extrapolation from epidemiological knowledge and laboratory experiment.

1. EFFECTS ON INDIVIDUALS

90. Bacteriological (biological) agents could be used with the intention of killing people or of incapacitating them either for a short or a long period. The agents, however, cannot be rigidly defined as either lethal or incapacitating, inasmuch as their effects are dependent upon many factors relating not only to themselves but to the individuals they attack. Any disease-producing agent intended to incapacitate may, under certain conditions, bring about a fatal disease. Similarly, attacks which might be intended to provoke lethal effects might fail to do so.

91. The effects of some forms of bacteriological (biological) warfare can be mitigated by chemotherapeutic, chemoprophylactic and immunication measures (for protection see Chapter I). Specific chemotherapeutic measures are effective against certain diseases but not against those caused by viruses. However, it may not always be possible to apply such measures, and they might not always be successful. For example, with some diseases early therapy with antibiotics is usually successful but relapses may occur. Moreover, resistance against antibiotics may develop in almost all groups of micro-organisms, and resistant strains may retain full virulence for man as well as for animals.

Possible bacteriological (biological) agents

92. Victims of an attack by bacteriological (biological) weapons would, in effect, have contracted an infectious disease. The diseases would probably be known, but their symptoms might be clinically modified. For example, apart from the deliberate genetic modification of the organism, the portals of infection might be different from the natural routes, and the disease might be foreign to the geographical area in which it was deliberately spread. Possible bacteriological (biological) agents representing diseases caused by the main groups of relevant micro-organisms are the following:

93. Anthrax. Under natural conditions, anthrax is a disease of animals, the main source of infection for man being cattle and sheep. The lung or respiratory form of transmission is most severe, and unless early treatment with antibiotics is resorted to, death ensues within two or three days in nearly every case. Antibiotic prophylaxis is possible but would have to be prolonged for weeks. The anthrax bacillus forms very resistant spores, which live for many years in contaminated areas and constitute the most dangerous risk the disease presents. Heavy concentrations of resistant anthrax spore aerosols could result in a high proportion of deaths in a heavily exposed population. Immunization could not be expected to protect against a heavy aerosol attack.

94. Coccidioidomycosis. This disease, which is also called desert fever, is caused by a fungus found in the soil of deserts in the United States, South America and the USSR. The spores of the fungus are very stable and can easily be disseminated as an aerosol. Treatment presents great difficulties.

95. Plague. Under natural conditions, small rodents, from which the disease is transmitted by fleas, are the main source of human infection with plague. This is how "bubonic" plague develops. If the plague microbes are inhaled, pneumonic plague develops after a three-to-five-day incubation period. The patient suffers from severe general symptoms and, if untreated, normally dies within two to three days. A patient with pneumonic plague is extremely contagious to contacts. Preventive vaccination is moderately effective against bubonic, but not pneumonic, plague. If administered early, streptomycin treatment may be successful.

96. Q-fever. Under natural conditions, Q-fever is a disease of animals, the main sources of infection to man being sheep, goats and cattle. In untreated cases, the illness lasts from two to three weeks; the patient feels exhausted and is unable to do normal work for several weeks. But the disease can be successfully treated with broad-spectrum antibiotics (tetracyclines). The agent causing the disease is a rickettsia and is extremely infectious for man. A Q-fever aerosol could produce an incapacitating effect in a large proportion of the population of an attacked area. The infective agent could persist in the environment for months.

97. Tularaemia. Under natural conditions, tularaemia is a disease of wild animals, the source of human infection being rodents, especially rabbits and hares. The pulmonary form (airborne infection) is the more serious. In Europe and Japan mortality due to this form of the disease was never higher than 1 per cent, even before antibiotics became available. American tularaemia strains, on the other hand, are much more dangerous; some epidemics have been associated with a mortality rate as high as 20 per cent, despite antibiotic treatment. Usually treatment with streptomycin or tetracyclines is highly effective. A tularaemia vaccine developed in the USSR is also highly effective. The agent causing the disease is a microbe which is very sensitive to common disinfectants but is able to survive for as long as a few weeks in contaminated dust, water etc. The disease is not transferred from man to man, but long-lasting natural foci might be created.

98. Venezuelan equine encephalitis virus (VEE). In nature, VEE is an infection of animals (equines, rodents, birds) transmitted to man through mosquitos which have fed on infected animals. The mortality rate is very low, and recovery is usually rapid after a week, with residual weakness often persisting for three weeks. No specific therapy is available. The vaccine is still in the experimental stage. Concentrated aerosols could be expected to incapacitate a very high percentage of the population exposed. In some areas, persistent endemic infection in wild animals would be established.

99. Yellow fever. In nature, yellow fever is primarily a virus disease of monkeys, transmitted to man by a variety of mosquitoes. The very severe forms end in black vomitus and death. In a non-immune population, mortality rates for yellow fever may be as high as 30-40 per cent. There is no specific treatment, but prophylactic vaccination, being highly effective, is widely used in yellow fever endemic areas.

2. EFFECTS ON POPULATIONS

100. Other than for sabotage, the use of aerosol clouds of an agent is the most likely form of attack in bacteriological (biological) warfare. The effects of bacteriological (biological) attacks obviously would vary according to circumstances. Military personnel equipped with adequate protective measures, well trained in their use and provided with good medical services could, if warned of an attack, be able to protect themselves to a considerable degree. But effective early warning and detection systems do not yet exist. On the other hand, attacks on civil populations are likely to be covert and by surprise, and, at present, no civilian populations are protected. Unprotected military or civilian personnel would be at complete risk, and panic and irrational behaviour would complicate the effects of the attack. The heavy burden that would be imposed on the medical services of the attacked region would compound disorganization, and there would be a major risk of the total disruption of all administrative services.

101. In view of the extensive antipersonnel effects associated with agents of the kind with which this report is concerned, it is useful to view them against the area of effect of a one-megaton nuclear explosion.

COMPARATIVE ESTIMATES OF DISABLING EFFECTS OF HYPOTHETICAL ATTACKS ON TOTALLY UNPROTECTED POPULATIONS USING A NUCLEAR CHEMICAL OR BACTERIOLOGICAL (BIOLOGICAL) WEAPON THAT COULD BE CARRIED BY A SINGLE STRATEGIC BOMBER

Criterion for estimate	Type of weapon		
	Nuclear (one megaton)	Chemical (15 tons of nerve agent)	Bacteriological (biological)[a] (10 tons)
Area affected	Up to 300 km^2	Up to 60 km^2	Up to 100,000 km^2
Time delay before onset of effect	Seconds	Minutes	Days
Damage to structures	Destruction over an area of 100 km^2	None	None
Other effects	Radioactive contamination in an area of 2,500 km^2 for 3-6 months	Contamination by persistence of agent from a few days to weeks	Possible epidemic or establishment of new endemic foci of disease
Possibility of later normal use of affected area after attack	3-6 months after attack	Limited during period of contamination	After end of incubation period or subsidence of epidemic
Maximum effect on man	90 per cent deaths	50 per cent deaths	50 per cent morbidity; 25 per cent deaths if no medical intervention

Continued			
Multiyear investment in substantial research and development production capability[b]	$5,000-10,000 million	$1,000-5,000 million	$1,000-$5,000 million

[a]It is assumed that mortality from the disease caused by the agent would be 50 per cent if no medical treatment were available.

[b]It is assumed that indicated cumulative investments in research and development and production plants have been made to achieve a substantial independent capability. Individual weapons could be fabricated without making this total investment.

3. EFFECTS ON ANIMALS

102. The way bacteriological (biological) weapons might be used against stocks of domestic animals would probably be the same as that used in attacks against man. Viral infections probably cause the most important diseases of domestic animals and could have more devastating effects than diseases produced by other types of pathogens. Since many of the organisms that cause infectious diseases in domestic animals are also pathogenic for man, such attacks might also affect the human population directly.

103. Covert bacteriological (biological) attack during peacetime directed against domestic animals could give rise to serious political and economic repercussions if large numbers of stock were affected.

104. Isolated attacks against stocks of domestic animals during wartime would have only a nuisance value. However, if a highly infectious agent (e.g., foot-and-mouth disease) were used, even a local attack could have very widespread effects because of spread by the normal commercial movement of animals.

105. The possibilities of protecting domestic animal stocks against bacteriological (biological) attacks are so remote that they are not worth discussing.

4. EFFECTS ON PLANTS

106/107. Living micro-organisms could also be used to generate diseases in crops which are economically important either as food or as raw material (e.g., cotton and rubber). Significant food crops in this respect include potatoes, sugar-beet, garden vegetables, soya beans, sorghum, rice, corn, wheat and other cereals and fruits.

108. In theory there are measures which could protect crops against bacteriological (biological) attacks; but at present their potential cost rules them out in practice. There is no essential difference between the measures which would have to be introduced to counter bacteriological (biological) weapons and those employed normally to control plant diseases in peacetime. But the use of bacteriological (biological) weapons to destroy crops on a large scale would imply that the attacker would choose agents capable of overcoming any known, economical method of protection.

5. FACTORS INFLUENCING THE EFFECTS OF BACTERIOLOGICAL (BIOLOGICAL) ATTACKS

Exotic diseases

109. Any country that resorted to bacteriological (biological) warfare would presumably try to infect, with a single blow, a large proportion of an enemy population with an exotic agent to which they had not become immune through previous exposures. In addition, a disease which had been controlled or eradicated from an area might be reintroduced as a result of bacteriological (biological) warfare.

Altered or new diseases

110. Deliberate genetic steps might also be taken to change the properties of infectious agents, especially in antigenic composition and drug resistance. Apart from genetic changes that could be induced in known organisms, it is to be expected that new infectious diseases will appear naturally from time to time and that their causative agents might be used in war.

Epidemic spread

111. As already emphasized, a wide variety of agents can infect by the inhalation route, so that in a bacteriological (biological) attack a large number of persons could be infected within a short time. From the epidemiological point of view, the consequences would differ, depending on whether the resultant disease was or was not transmissible from man to man. In the latter case the result would be a once-for-all disaster, varying in scale and lethality according to the nature of the organism used and the numbers of people affected.

Susceptibility of population

112. A very important factor in the effectiveness of an aerosol attack is the state of immunity of the target population. Where the population is completely lacking in specific immunity to the agent which is disseminated, the incidence and severity of disease are likely to be exceptionally high. Naturally occurring examples of very severe epidemics in virgin populations are well known (e.g., measles in Fiji, poliomyelitis and influenza in the Artic).

Populations of increased vulnerability

113. The Good and Agricultures Organization (FAO), the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) have pointed out that in developing countries a shortage of nutritious food is a major factor in the high mortality rate due to infectious diseases, particularly in children.

114. Primitive housing and inadequate clothing would lead to an increased vulnerability to bacteriological (biological) weapons and, more particularly, chemical weapons. Other conditions which characterize poor populations have a definite influence on the spread of infections. Inadequate housing, lack of potable water and, in general, bad sanitation, a low educational level, numerous vectors of infectious disease and, of course, a lack of medical services are factors which also favour the spread of disease.

Social effects and public health measures

115. A basic factor which influences the risk of epidemic situation during every war is a rapid impairment of standards of hygiene, produced by widespread destruction of housing and of sanitary facilities, the inevitable decline in personal hygiene and other difficulties.

Chapter III

ENVIRONMENTAL FACTORS AFFECTING THE USE OF CHEMICAL AND BACTERIOLOGICAL (BIOLOGICAL) WEAPONS

A. General considerations

116. Environmental factors influence the behaviour of chemical and bacteriological (biological) weapons to a far greater extent than they do any other kind of armament.

117. Chemical attacks would usually take effect simultaneously in two forms:

(a) Contamination of the ground at, and in the immediate vicinity of the target by direct deposition of the agent at the time of dispersion and by subsequent settling of large particles;

(b) Formation of a toxic cloud consisting of fine particles, or droplets, of aerosol and possibly of vapour.

118. Most bacteriological (biological) attacks would be designed primarily to create an infectious aerosol as an inhalation hazard. Some ground contamination, however, might also result when infectious particles settled on the ground. Both ground contamination and toxic or infectious clouds would be immediately subject to the physical action of the atmosphere.

B. The influence of atmospheric factors on clouds of aerosols or vapours

119. The movement of a toxic or infectious cloud after its formation depends chiefly on the combined effects of wind and atmospheric conditions. The cloud is carried a longer or shorter distance by the wind; at the same time it is dispersed and diluted at a faster or slower rate by turbulence of the atmosphere and by local disturbances of mechanical origin resulting from the roughness of the ground. The cloud may rise rapidly in the atmosphere or remain in the immediate vicinity of the ground, thus retaining its destructive power for a greater or lesser time, depending on whether the air layer in which it is released is in a stable or unstable state.

1. STATE OF THE ATMOSPHERE

120. The state of the atmosphere plays such an important role in the behaviour of aerosol clouds that one might almost say that it is the predominant factor in determining the outcome of an attack, the effect of which could be considerably reduced, or almost nullified, if the atmosphere was very unstable, or very serious if it was in a state of pronounced and prolonged stability. This condition has characterized all the disasters caused by

industrial pollution; for example, the smog which claimed 4,000 victims in London in 1952 took its toll during a period of atmospheric stability which lasted for seven days.

2. URBAN AREAS

121. The case of urban built-up areas is more complex, and it may even be said that each one possesses its own microclimate, depending on its geographical situation, its topography and the layout and nature of its buildings. Fog is more frequent over towns than over open country (+30 per cent in summer and +100 per cent in winter). The process of fog formation is accelerated by the particles, dust and smoke which form a dome over the town. Fog will obviously have a concentrating effect on particles originating in toxic clouds.

3. EFFECT OF WIND AND TOPOGRAPHY

122. The wind carries and spreads the toxic or infectious cloud, which is simultaneously diluted by turbulence. The distance which the cloud travels before its concentration has fallen to a level below which it is no longer harmful depends on the velocity of the wind and the state of the atmosphere. Inasmuch as topography also produces changes in the normal wind pattern, it, too, plays an important part in determining the direction of travel of toxic clouds, sometimes focusing their effects in individual areas.

123. A stable or neutral atmosphere in equilibrium might cause a toxic cloud produced by a chemical or bacteriological (biological) attack to persist for hours after it had exercised its military effect, which could generally be expected to materialize in the first few minutes following the attack. These conditions could obtain not only at night but during long winter periods over vast continental expanses. If a neutral atmosphere in equilibrium were associated with a light wind, irregular in direction, then the area affected could be relatively large, and, assuming an adequately heavy initial attack, the concentrations would be high.

4. SPECIAL FEATURES OF BACTERIOLOGICAL (BIOLOGICAL) AEROSOLS

124. So far as physical phenomena are concerned, bacteriological (biological) aerosols would be generally affected in the same way as chemical clouds of aerosol and vapour, but not necessarily to the same extent. But inasmuch as the effective minimum doses for bacteriological (biological) agents are considerably smaller than for chemical agents, bacteriological (biological) aerosols could contaminate much larger areas than could chemical clouds.

125. There would be no limit to the horizontal transport of micro-organisms, if there were none to the capacity of the organisms to survive in the atmosphere. The agents whether alive or dead, might remain suspended and travel very considerable distances. Even if bacteriological (biological) clouds were to move only nearest the ground, they could cover very large areas.

126. On the other hand, most pathogenic agents are highly vulnerable when outside the organism in which they normally reproduce and are liable to biological inactivation, which is sometimes rapid, in the aerosol state.

C. Influence of atmospheric factors

127. Atmospheric factors, such as temperature, humidity, precipitation and solar radiation, may also influence the results of an attack with aerosol. Bacteriological (biological) agents would be more susceptible to environmental influences than chemical agents.

128. Physico-chemical atmospheric factors have a destructive effect on aerosol-borne micro-organisms. Their viability decreases gradually over a period of hours or days at a progressively diminishing rate. This apparent vulnerability of micro-organism in aerosols might cast some doubt on the possible effectiveness of bacteriological (biological) attacks. However, there are various means by which the rate of decay in the aerosol can be considerably reduced; for example, the use of very high concentrations of agent; the use of suitably "modelled" pathogenic strains; or the protection of aerosol particles by encapsulating them in certain organic compounds.

Chapter IV

POSSIBLE LONG-TERM EFFECTS OF CHEMICAL AND BACTERIOLOGICAL (BIOLOGICAL) WARFARE ON HUMAN HEALTH AND ECOLOGY

A. General

129. So far this report has dealt essentially with the potential short-term effects of chemical and bacteriological (biological) warfare. The possible long-term effects of the agents concerned need to be considered against the background of the trends whereby man's environment is being constantly modified, as it becomes transformed to meet his ever-increasing needs.

130. Man has his special ecological problems. His numbers are multiplying fast, and increasing population requires commensurate increases in food production. But although the use of fertilizers, herbicides and pesitcides has brought about a massive increase in food production, it has also added to the pollution of soil and water and, as a result, has altered our ecological environment in an enduring way. So, too, have other features of our industrial civilization. Every new advance on our technological civilization helps to transform the ecological framework within which we evolved. From this point of view, the existence and possible use of chemical and bacteriological (biological) agents in warfare have to be regarded as an additional threat, and as a threat which might have enduring consequences, to our already changing environment.

B. Consequences to man of upsetting the ecological equilibrium

131. The chemical industry doubled its output between 1953 to 1960, and it is still growing fast; the useful results of its continued development are of the utmost importance to man's future. The good effects on food production of the use of artificial fertilizers alone far outweigh any secondary

deleterious consequences of their use. The beneficial effect of the utilization of modern chemical pesticides also does not need spelling out. What has to be realized about modern agricultural practices is that without them the increases in the output of food which the world needs could never be achieved.

132. But as already indicated, the great increase in the use of fertilizers, pesticides and herbicides does have deleterious side effects that cannot but help transform - for all we know adversely - the environment in which living matter, including fish, otherwise thrive. The dangers of the side effects of modern pesticides are also beginning to be appreciated and are already beginning to be guarded against in advanced countries. It is theoretically possible that in some situations in which non-selective chemical pesticides are used disruption of the ecological equilibrium could lead to the long-term suppression of useful animals and plants. Detergents are another modern chemical development whose use has had to be regulated, inasmuch as they have a direct short-term effect on certain types of natural food, such as daphniae and the algae which are eaten by fish.

133. Towns and cities are growing all over the world and in the developed countries conurbations (fusion of cities with loss of suburbs) have reached population levels approaching 50 million. The use of chemical or bacteriological (biological) weapons against cities would undoubtedly have an exceptionally severe disorganizing effect, and the full re-establishment of the services necessary for health, efficient government and the smooth operation of industry might take a very long time.

C. Possible long-term effects of chemical and bacteriological (biological) means of warfare on man and his environment

134. Chemical weapons, in addition to their highly toxic short-term effects, may also have a long-term effect on the environment in which they are disseminated. If used in very high concentration they might cause damage by polluting the air and water supplies and by poisoning the soil. Bacteriological (biological) weapons could be directed against man's sources of food through the spread of persistent plant diseases or of infectious animal diseases. There is also the possibility that new epidemic diseases could be introduced, or old ones reintroduced, which could result in deaths on the scale which characterized the mediaeval plagues.

1. CHEMICAL WEAPONS

135. There is no evidence that the chemical agents used in the First World War - chlorine, mustard, phosgene and tear-gas - had any untoward ecological consequences. The regions affected have long since returned to normal and fully productive use.

136. The organophosphorous, or nerve, agents have never been used in war. But inasmuch as these agents are toxic to all forms of animal life, it is to be expected that if high concentrations were disseminated over large areas,

and if certain species were virtually exterminated, the dynamic ecological equilibrium of the region might be changed.

137. In high rainfall areas, deforestation by the use of herbicides may lead to serious erosion, and so to considerable agricultural losses. Deserts have been created in this way.

2. BACTERIOLOGICAL (BIOLOGICAL) WEAPONS

Against man

138. New natural foci, in which infection may persist for many years, may be established after an aerosol or other type of bacteriological (biological) attack. The spread of rabies in Europe following the Second World War, as a consequence of the disorganization caused by war, shows how an epidemiologically complicated and medically dangerous situation can emerge even with an infection which had long been successfully controlled. Bringing the situation under control demanded extraordinary and prolonged efforts. None the less, the disease has not yet been stamped out. Natural foci cannot be eliminated without organized and long-term international co-operation. Large-scale use of bacteriological (biological) weapons might reduce populations of susceptible wild species below the level at which they could continue to exist. The elimination of a species or group of species from an area might seriously disturb its ecological equilibrium and eventually lead to the establishment of a natural focus of disease.

139. The gravity of these risks would depend on the extent to which the community of species in the country attacked contained animals which were not only susceptible to the infection but were living in so close a relationship to each other that the infection could become established. For example, a natural focus of yellow fever is very unlikely to become established in any area lacking an adequate population of mosquitoes suitable as vectors.

140. Endemics or enzootics of diseases (i.e., infections spreading at a low rate, but indefinitely, in a human or animal population) could conceivably follow a large-scale attack, or might be started by a small-scale sabotage attack, for which purpose the range of possible agents would be much wider and might even include such chronic infections as malaria.

141. Another consideration is the possible introduction of a new species to an area to cause either long-term disease or economic problems. Certain mosquito species have naturally spread to many areas of the world from their original home in Africa and have been responsible for serious disease problems in the areas that have been invaded. It is conveivable that in the war the introduction of such insects on a small scale might be tried for offensive purposes.

Against domestic animals

142. Foot-and-mouth disease is a highly infectious but largely non-fatal disease of cattle, swine and other cloven-footed animals. It is rarely transmitted from a diseased animal to man. The milk yield of diseased cows decreases sharply and does not reach its normal yield even after complete recovery. It is obvious that a large epizootic could constitute a very serious economic burden, for example, by bringing about a serious reduction in the supply of milk.

143. Brucellosis is an example of chronic disease which could possibly result from bacteriological (biological) weapon attacks. There are three forms known and any of these may be transmitted to man, in whom it causes a debilitating but rarely fatal disease lasting for four to six months or even longer.

144. If large quantities of anthrax spores were disseminated in bacteriological (biological) weapons, thus contaminating the soil of large regions, danger to domestic animals and man might persist for a very long time. There is no known way by which areas could be rendered safe.

Against crops

145. The rust fungus is one of the most damaging of natural pathogens which affect wheat crops. It is estimated that the annual total world loss of wheat from rust is equivalent to about $500 million. Rust epiphytotics might have a very serious effect in densely populated developing countries, where the food supply might be reduced to such an extent that a human population already suffering from malnutrition might be driven to starvation.

3. GENETIC AND CARCINOGENIC CHANGES

146. The possibility also exists that chemical and bacteriological (biological) weapons might cause genetic changes. Some chemicals are known to do this. LSD, for example, is known to cause genetic changes in human cells. Such genetic changes might conceivably have a bearing on the development of cancer. A significantly increased incidence of cancer in the respiratory tract (mainly lung) has been reported recently among workers employed in the manufacture of mustard gas during the Second World War.

Chapter V

ECONOMIC AND SECURITY IMPLICATIONS OF THE DEVELOPMENT, ACQUISITION AND POSSIBLE USE OF CHEMICAL AND BACTERIOLOGICAL (BIOLOGICAL) WEAPONS AND SYSTEMS OF THEIR DELIVERY

A. General

147. Previous chapters have revealed the extent to which scientific developments have magnified the potential risks associated with the concept

of chemical or bacteriological (biological) warfare. The doubt that an attack could be restricted to a given area means that casualties could occur well outside the target zone. Were these weapons used to blanket large areas and cities, they would cause massive loss of human life, affecting non-combatants in the same way as combatants, and, in this respect, they must clearly be calssified as weapons of mass destruction.

B. Production

1. CHEMICAL WEAPONS

148. With the rapid development of the industry since the First World War, there has been an enormous growth in the potential capacity to produce chemical agents. The scale, nature and cost of any programme for producing chemical weapons, and the time needed to implement it, would clearly be largely dependent on the scientific, technical and industrial potential of the country concerned. It would depend not only on the nature of the chemical industry itself and the availability of suitably trained engineers and chemists but on the level of development of the chemical engineering industry and of the means of automating chemical processes, especially where the production of highly toxic chemical compounds is involved. Whatever the cost of developing a chemical or bacteriological (biological) capability, it needs to be realized that it would be a cost additional to, and not a substitute for, that of acquiring an armoury of conventional weapons.

149. Today a large number of industrialized countries have the potential to produce a variety of chemical agents. Many of the intermediates required in their manufacture, and in some cases even the agents themselves, are widely used in peacetime. Such substances include, for example, phosgene, which some highly developed countries produce at the rate of more than 100,000 tons a year and which is commonly used as an intermediate in the manufacture of synthetic plastics, herbicides, insecticides, paints and pharmaceuticals. The world production of ethylene-oxide and propylene-oxide is now well in excess of 2 million tons per year. Two hundred and fifty thousand tons of ethylene-oxide would yield about 500,000 tons of mustard gas.

150. The production of highly toxic nerve agents, including organophosphorus compounds, presents problems which, because they are relatively difficult, could be very costly to overcome. The approximate cost of acquiring one plant complex to produce munitions containing up to 10,000 tons of Sarin a year would be about $150 million. The cost, of course, would be considerably less if existing munitions could be charged with chemical agents.

151. A country which possessed a well-developed chemical industry could clearly adapt it to produce chemical agents. But were it to embark on such a step, it would be only the beginning. The establishment of a comprehensive chemical warfare capability would also involve special research centres, experimental test grounds, bases, storage depots and arsenals. The development of sophisticated and comprehensive weapon systems would be a very costly part of the whole process.

2. BACTERIOLOGICAL (BIOLOGICAL) WEAPONS

152. The microbiological expertise necessary to grow agents of bacteriological (biological) warfare exists to a large extent in many countries, inasmuch as the requirements are similar to those of a vaccine industry and, to a lesser extent, a fermentation industry. Apart from the combination of the highly developed technologies of these two industries, there remains only a need for some specialized knowledge, expertise and equipment to permit the safe handling of large quantities of bacteriological (biological) agents. But the technological complexities of producing bacteriological (biological) agents in dry powder form are very much greater than for wet spray systems. Moreover, it would be desirable to provide an effective vaccine with which to protect production staff. The technical difficulties would increase with the scale and complexity of the weapon systems that were being developed.

153. Despite the fact that the development and acquisition of a sophisticated armoury of chemical and bacteriological (biological) weapon system would prove very costly, any developing country could acquire a limited capability in this type of warfare. Hence, the danger of the proliferation of this class of weapons applies as much to developing as it does to developed countries.

C. Delivery systems

154. Practically all types of explosive munitions (artillery shells, mines, guided and unguided rockets, serial bombs, landmines, grenades, etc.) can be adapted for the delivery of chemical agents. A modern bomber, for example, can carry about fifteen tons of toxic chemical agents, and it is estimated that only 250 tons of V-gas, an amount which could be delivered by no more than fifteen or sixteen aircraft, is enough to contaminate a great city with an area of 1,000 square kilometres and a population of from 7 to 10 million. Were such a population mainly in the open and unprotected, fatal casualties might reach the level of 50 per cent.

155. Existing armaments which (with some modification) could be used to deliver agents in order to generate local outbreaks of disease could also contaminate large areas with pathogens. For example, a single aircraft could cover with a bacteriological (biological) agent an area of up to 100,000 square kilometres, although the area of effective dosage might be much smaller due to loss of the infectivity of the airborne agent.

D. Protection

156. The measures which would be required to protect a population, its livestock and plants against chemical or bacteriological (biological) attack are immensely costly and complex (chapter I). Even if protective measures were provided against known agents, it is conceivable that new ones might be developed whose physical or chemical properties would dictate a need for new individual and communal protective equipment. This could constitute an even greater economic burden.

157. Defensive measures, especially against chemical agents, would also have to include the extremely laborious and expensive task of decontaminating large numbers of people, as well as equipment, weapons and other materials.

158. A very important part of a defense system against chemical or bacteriological (biological) weapons would be the means of very rapidly detecting an attack and identifying the specific agent used. Methods for doing this rapidly and accurately are still inadequate.

159. It would be extremely difficult to arrange for the medical treatment of a civilian population which had been attacked with chemical or bacteriological (biological) weapons. Mobile groups of specialists in infectious disease, of microbiologists and of well-trained epidemiologists would have to be organized to provide for early diagnosis and treatment, and a network of reserve hospitals and a massive supply of drugs would have to be prepared in advance. The maintenance of a stockpile of medical supplies is extremely costly.

E. Cost to society

160. The extent to which the acquisition, storage, transport and testing of chemical and bacteriological (biological) munitions would constitute an economic burden would depend on the level of a country's industrial and military capability, although compared to nuclear weapons and advanced weapon systems in general, it might not seem excessive. But the task of organizing delivery systems and deployment on a large or sophisticated scale could well be economically disastrous for many countries.

161. Chemical and bacteriological (biological) attacks could be particularly dangerous in towns and densely populated areas. The consequences might also be particularly serious in regions with a warm, moist climate, in low-lying areas and in areas with poorly developed medical facilities.

162. The technical and organizational complexity and the great financial cost of providing adequate protection for a population against attack by chemical and bacteriological (biological) agents have already been emphasized. Total costs of civil defence against chemical and bacteriological (biological) agents would be greater than $15,000-$25,000 million for a developed country of 100-200 million people. But even if such a programme were ever planned and implemented, there could be no assurance that full protection could be achieved.

163. It is almost impossible to conceive of the complexity of the arrangements which would be necessary to control the consequences of a large-scale bacteriological (biological) attack. Even in peacetime, the development of an epidemic of a highly contagious disease started by a few individual cases necessitates enormous material expenditure and the diversion of large numbers of medical personnel. Large-scale bacteriological (biological) attacks could have a serious impact on the entire economy of the target country and, depending on the type of agent used, the disease might well spread to neighbouring countries.

164. Whatever might be done to try to save human beings, nothing significant could be done to protect crops, livestock, fodder and foodstuffs from a chemical and bacteriological (biological) weapons attack. Water in open reservoirs could be polluted as a result of deliberate attack, or perhaps accidentially, with chemical or bacteriological (biological) weapons. Enormous damage could be done to the economy of a country whose agricultural crops were attacked with herbicides. For most practical purposes, it would be impossible to prevent the destruction of cultivated plants on which herbicides have been used, and, depending on a country's circumstances, widespread famine might follow.

165. Over and above all these possible effects of chemical and bacteriological (biological) warfare on farm animals and crops is the possibility discussed in the previous chapter, of widespread ecological changes due to deleterious changes brought about in wild fauna and flora.

F. The relevance of chemical and bacteriological (biological) weapons to military and civil security

166. Chemical weapons could be more effective than equivalent weights of high explosive when directed against densely populated targets. Similarly, so far as mass casualties are concerned, bacteriological (biological) weapons could, in some circumstances, have far more devastating effects than chemical weapons, and effects which might extend well beyond the zone of military operations.

167. From the military point of view, one essential difference between antipersonnel chemical and bacteriological (biological) weapons, on the one hand, and a conventional high-explosive weapon, on the other (including small arms and the whole range of projectiles), is that the area of the effects of the latter is more predictable. Neither the effectiveness nor the effects of chemical and bacteriological (biological) weapons can be predicted with assurance. In fact, they could open the door to hostilities which could become less controlled, and less controllable, than any war in the past. Uncontrollable hostilities cannot be reconciled with the concept of military security.

168. Since some chemical and bacteriological (biological) weapons constitute a major threat to civilian populations and their food and water supplies, their use cannot be reconciled with general national and international security. Their very existence contributes to international tension without compensating military advantages. They generate a sense of insecurity not only in countries which might be potentially belligerent but in those which are not. Neutral countries could be involved through the use of chemical and bacteriological (biological) weapons, especially those whose territories bordered on countries involved in a conflict.

169. Obviously, any extensive use of chemical weapons would be known to the country attacked. The source of the attack would probably also be known. On the other hand, it would be extremely difficult to detect isolated acts of sabotage in which bacteriological (biological) weapons were used, especially if the causative organism were already present in the attacked country. Because of the suspicions they would generate, acts of sabotage could thus provoke a conflict involving the widespread use of chemical and bacteriological (biological) weapons.

CONCLUSION

170. All weapons of war are destructive of human life, but chemical and bacteriological (biological) weapons stand in a class of their own as armaments which exercise their effects solely on living matter. The fact that certain chemical and bacteriological (biological) agents are potentially unconfined in their effects, both in space and time, and that their large-scale use could conceivably have deleterious and irreversible effects on the balance of nature adds to the sense of insecurity and tension which the existence of this class of weapons engenders.

171. The potential for developing an armoury of chemical and bacteriological (biological) weapons has grown considerably in recent years, not only in terms of the number of agents but in their toxicity and in the diversity of their effects.

172. Moreover, chemical and bacteriological (biological) weapons are not a cheap substitute for other kinds of weapons. They represent an additional drain on the national resources of those countries by which they are developed, produced and stockpiled. The cost, of course, cannot be estimated with precision. To some the cost might be tolerable, to others it would be crippling, particularly when account is taken of the resources which would have to be diverted to the development of testing and delivery systems. And no system of defence, even for the richest countries in the world, and whatever its cost, could be completely secure.

173. Because chemical and bacteriological (biological) weapons are unpredictable, in varying degree, and because no certain defence can be planned against them, their universal elimination would not detract from any nation's security. The development of a chemical or bacteriological (biological) armoury, and a defence, implies an economic burden without necessarily imparting any proportionate compensatory advantage to security. And, at the same time, it imposes a new and continuing threat to future international security.

174. The general conclusion of the report can thus be summed up in a few lines. Were these weapons ever to be used on a large scale in war, no one could predict how enduring the effects would be and how they would affect the structure of society and the environment in which we live. This overriding danger would apply as much to the country which initiated the use of these weapons as to the one which had been attacked, regardless of what protective measures it might have taken in parallel with its development of an offensive capability. A particular danger also derives from the fact that any country could develop or acquire, in one way or another, a capability in this type of warfare, despite the fact that this could prove costly. The danger of the proliferation of this class of weapons applies as much to the developing as it does to developed countries.

175. The momentum of the arms race would clearly decrease if the production of these weapons were effectively and unconditionally banned. Their use, which could cause an enormous loss of human life, has already been condemned and prohibited by international agreements, in particular the Geneva Protocol of 1925. The prospects for general and complete disarmament under effective international control would brighten significantly if the development, production and stockpiling of chemical and bacteriological (biological) agents intended for purposes of war were to end and if they were eliminated from all military arsenals.

NAPALM AND OTHER INCENDIARY WEAPONS AND ALL ASPECTS OF THEIR POSSIBLE USE

A/8803/Rev.1

INTRODUCTION

1. In accordance with General Assembly resolution 2852 (XXVI), the Secretary-General was asked to prepare as soon as possible, with the help of qualified governmental consultant experts, a report on napalm and other incendiary weapons and all aspects of their possible use. It was envisaged that a report by the Secretary-General "on the question of napalm ... could facilitate subsequent action by the United Nations with a view to curtailing or abolishing such uses of the weapons in question as might be established as inhumane" (A/8052, para. 126).

2. The request for this report is not a single or isolated action. The International Conference on Human Rights, held under United Nations auspices at Teheran in 1968, adopted resolution XXIII entitled "Human rights in armed conflicts".1/ It was noted in this resolution that "the use of chemical and biological means of warfare, including napalm bombing erode human rights and engender counter-brutality". In the same resolution, napalm bombing was mentioned as an example of the widespread violence and brutality of our times. It is also appropriate to mention in this context the Conference of Government Experts on the Reaffirmation and Development of International Humanitarian Law Applicable in Armed Conflicts organized by the International Committee of the Red Cross. Among the experts consulted by the ICRC, a number declared themselves in favour of the prohibition of napalm.

3. Incendiary weapons may be defined, for the purposes of the present report, as weapons which depend for their effects on the action of incendiary agents. These in turn may be defined as substances which affect their targets primarily through the action of flame and/or heat derived from self-supporting and/or self-propagating exothermic chemical reactions; these reactions, for all practical purposes, are combustion reactions.

1/ Final Act of the International Conference on Human Rights (United Nations publication, Sales No.: E.68.XIV.2), p. 18.

4. Of particular significance today are weapons based on napalm. "Napalm" was a term originally coined to designate a special type of thickening agent that was capable of converting gasoline into a particularly destructive type of incendiary agent. Nowadays the term has acquired a wider meaning and is used in this report to designate all types of incendiary agents made from gasoline, or from other light petroleum distillates, to which thickening agents have been added. Napalms are often exceptionally simple to make, requiring raw materials that are widely available in many parts of the world.

5. The report presents a series of conclusions. The tenor of these is as follows: incendiary weapons are cruel weapons that cause great human suffering. Their use is often indiscriminate as regards their targets. Because of this there is a need to consider measures for the clear-cut prohibition of incendiary weapons.

Chapter I

INCENDIARY AGENTS AND WEAPONS

DEFINITIONS AND SCOPE

6. Napalm and other incendiary weapons are designed to inflict damage on an enemy, his possessions or his environment primarily through the action of heat and flame. Other categories of weapons may also have an incendiary action - as, for example, in the case of nuclear weapons - but this report is concerned only with those where incendiary effects are the ones primarily sought. Incendiary weapons may, however, have other damaging effects. Some incendiary agents are poisons and some produce toxic or asphyxiating effects when they burn.

7. Incendiary-weapon systems have three principal components: an incendiary agent; munitions for dispensing and igniting the incendiary agent in the target area; and a delivery system for conveying the munitions to the target. Munitions containing incendiary agents have been developed for most of the weapon delivery systems possessed by present-day armed services, including aircraft, artillery, naval ordnance, armoured fighting vehicles and the individual soldier.

INCENDIARY AGENTS

8. An incendiary agent is a chemical, or a mixture of chemicals, which can be triggered into undergoing a chemical reaction that liberates a large and sustained quantity of heat. Almost invariably the reaction is that of combustion, namely, reaction of a fuel with oxygen. The oxygen may either be incorporated in the incendiary agent in the form of an oxidizing agent, or it may be drawn from the air.

9. Targets vary in their vulnerability towards heat. The human body, for example, and inflammable materials such as wood or dry vegetation, are more vulnerable than structures composed predominantly of concrete or metal.

For this and other reasons, a range of different incendiary agents has been developed. These can be grouped into four broad categories, namely metal incendiaries, pyrotechnic incendiaries, pyrophoric incendiaries and oil-based incendiaries. Napalm is an oil-based incendiary.

10. An incendiary agent may also be classified either as an "intensive" type or as a "scatter" type. The intensive-type agents are designed for use against materials and buildings of low combustibility and include the metal and the pyrotechnic incendiaries. The scatter-type agents are designed for use against readily combustible targets, or as direct casualty agents against people. Such targets do not necessitate intense point-sources of fire and heat. They can be damaged if relatively small quantities of burning incendiary agent are scattered over their surfaces. Pyrophoric and oil-based incendiaries are scatter-type agents. Their destructiveness is greatest when they are sufficiently adhesive to cling to surfaces while burning, and adhesion-improving additives have been developed for them.

METAL INCENDIARIES

11. Many metals react readily with oxygen or air, much heat being generated in the process. When heated to a high enough temperature, some react so violently that they incandesce and burst into flame. Because they are dense materials, they may therefore make efficient intensive-type incendiaries.

12. Magnesium is the best known metal incendiary, and is the one that has been the most extensively used in war. It is not a particularly cheap material, but it is a widely used industrial commodity in many parts of the world. Certain other metals have a higher heat of combustion, but they are either too expensive or too difficult to ignite. Magnesium melts as it burns, and the molten burning metal may spread over an appreciable area.

13. Hot magnesium reacts with water to generate hydrogen gas, which itself may then ignite. This may complicate the problems of fire-fighting. In order to increase the difficulties of fire-fighting, explosive charges are sometimes included in the bomb casings.

PYROTECHNIC INCENDIARIES

14. Pyrotechnic incendiaries are ignitable mixtures comprising a fuel and an oxidizing agent. They therefore differ from the other categories of incendiary in that they incorporate their own source of oxygen and do not rely on the surrounding air for combustion.

15. Thermite is the prime example of a pyrotechnic incendiary. It was the most widely used incendiary agent of the First World War, and continues in use to the present day. When ignited, this composition burns with great rapidity and violence, the burning temperature exceeding that of magnesium. Molten iron is released in the process; this may flow or be spattered over surrounding surfaces.

16. Despite its alarming appearance when ignited, thermite burns so rapidly that much of the heat generated may be wasted, and it does so without producing a flame. For these reasons, thermite is often modified by including other materials within its formulation. One such mixture is known as thermate. Thermates are easier to ignite than thermite and usually generate large flames. They are used today in incendiary hand grenades and in aircraft bomblets.

PYROPHORIC INCENDIARIES

17. Pyrophoric incendiaries are materials which ignite spontaneously when exposed to air.

18. White phosphorus is a widely used pyrophoric incendiary. When exposed to air, it soon bursts into flame, generating oxides of phosphorus which, under the influence of atmospheric moisture, turn into a dense cloud of white smoke. White phosphorus is generally capable of setting fire only to the most readily combustible materials. It is a scatter-type incendiary. It is usually distributed over its target by an explosive burst. Particles of the agent adhere readily to surfaces while they burn.

19. Lumps of burning white phosphorus are difficult to extinguish with water, and even if water is effective, the lumps reignite when they are dry. Phosphorus fires are best controlled with sand or earth. One particular hazard of fighting phosphorus fires is the ease with which lumps of burning phosphorus stick to the boots and other clothing of fire-fighters. Solutions of white phosphorus in carbon disulphide have been used for incendiary projectiles, bombs and hand-grenades. They have also been dispensed from aircraft spray-tanks. White phosphorus is commonly used as an igniter for oil-based incendiaries charged into projectiles or bombs. Like magnesium, white phosphorus is not a particularly cheap material. However, there is a substantial chemical industry that is based upon it, and its annual world production, which is growing, exceeds a million tons. About 15 countries in the world possess white phosphorus manufacturing facilities.

20. Of the many other pyrophoric materials that are known, triethyl aluminium is one which has recently come into use as an incendiary agent. This substance takes fire, sometimes with explosive violence, in contact with air or water. When used with a thickening agent, it can be scattered in burning gobbets that produce severe skin burns, ignite combustible materials and are extremely difficult to extinguish.

NAPALM AND OTHER OIL-BASED INCENDIARIES

21. Hydrocarbons derived from petroleum oil are inflammable liquids that possess a high heat of combustion and produce a large flame. Because they are cheap (the current market price of crude oil is around $20 per metric ton) and widely available, they have long been studied and used as incendiary agents. Moreover, hydrocarbons burning in quantity frequently generate large amounts of carbon monoxide, which is a highly poisonous gas that may significantly add to the aggressive properties of oil-based incendiaries. Petroleum

hydrocarbons have heats of combustion considerably greater than that of magnesium or white phosphorus. Gasoline is mixed with certain additives when used as an incendiary agent. These greatly increase its destructiveness. They modify its flow properties into a form more suited to weapons use, and make it sufficiently adhesive and cohesive to stick to surfaces in burning gobbets. They may also prolong its burning time and increase its burning temperature.

22. At the outset of the Second World War, the most common additive was rubber. As this became a critical raw material, much work was done on developing substitutes. In 1942, it was discovered that an aluminium soap obtained from a mixture of coconut acid, naphthenic acid and oleic acid provided a particularly effective thickener. This substance came to be known as napalm.2/ Nowadays the meaning of the word "napalm" has broadened to include all types of thickened hydrocarbons used as incendiary agents. In the present report, "napalm" signifies any gelled-hydrocarbon incendiary. In many, but not all, respects, gasoline thickened with napalm soap proved superior as an incendiary agent to previous gasoline gels. It combines a prolonged burning time with great adhesiveness and certain other advantageous physical properties. Important among these are its stability as a gel, and its visco-elasticity.

23. The napalm soap of the Second World War continues in use today, but during the intervening years research and development programmes have produced - and continue to produce - still more effective thickeners. One of the most extensively employed of the new napalms comprises gasoline mixed with an equal quantity of benzene, the mixture being thickened with an equal quantity of polystyrene. It has a greater adhesiveness than earlier napalms, greater storage stability, and lends itself better to large-scale production.

INCENDIARY WEAPONS

24. A wide range of different incendiary weapons has been developed. A distinction is adopted in the following description between incendiary weapons intended for use against population centres, on the one hand, and those for use against battlefield targets, on the other.

INCENDIARY WEAPONS FOR USE AGAINST POPULATION CENTRES

25. Incendiary air attacks against population centres have been conducted in past wars by dispensing great quantities of bombs over the target area with the aim of initiating a large number of primary fires that subsequently spread of their own accord, developing into a conflagration. Against buildings that are made predominantly of brick, stone, concrete or metal, bombs containing intensive-type incendiary agents have chiefly been used. The bombs are made heavy and strong enough to penetrate through roofs. Upon

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2/ The word "napalm" is a contraction of "naphthenate" and "palmitate". It was at first supposed that it was the palmitic acid contained in the coconut acid which was responsible for the efficacy of napalm, rather than the lauric acid, as later transpired.

detonation, they spatter their contents over the inflammable interiors of the buildings. Small magnesium or thermate weapons have generally been dropped in clusters containing a hundred or more. The cluster units open above the target to distribute their bomblets over the target area. Many small fires may then be created in close proximity to one another, and this has proved particularly favourable to the development of a conflagration.

26. Incendiary bomb-loads dropped on urban areas have generally contained a proportion of high explosive weapons. These are intended to shatter windows or break down walls, thereby increasing the inflammability of the target area. They are also intended to rupture watermains and destroy other public utilities, thereby impeding fire-fighting activities.

AIR WEAPONS FOR USE AGAINST BATTLEFIELD TARGETS

27. Tactical aircraft supporting ground operations have frequently used incendiary weapons. Against fixed installations, they may employ the same weapons as those described above. Another weapon, the "fire-bomb", has been extensively used by ground-support aircraft against installations and vehicles. It is also a potent casualty weapon when used against populated area targets. A current version holds about 400 litres of napalm. When it strikes the ground, the agent is spattered over an elliptical area about 120 metres long and 25 metres wide. Another aircraft incendiary weapon is the white phosphorus rocket. Rocket launchers are common armaments for ground-support aircraft.

GROUND WEAPONS FOR USE AGAINST BATTLEFIELD TARGETS

28. Although napalm was developed during the Second World War primarily for use in air raids on cities, its properties made it particularly suited for use in flamethrowers. Indeed, but for the development of napalm, the flamethrower would probably not have acquired its present status. There are two principal types: the portable, which a soldier can carry on his back, and the mechanized flamethrower, used either as an auxiliary or as a main armament on armoured fighting vehicles. Incendiary rockets fired from portable rocket launchers are beginning to replace portable flamethrowers in some of their tactical roles. Larger rockets of this type are being developed for use from armoured fighting vehicles.

29. Other ground weapons dispensing incendiary agents include landmines charged with napalm or white phosphorus; artillery projectiles, mortar bombs or small rockets (i.e., up to 125 millimetre calibre) charged with white phosphorus; and hand- or rifle-grenades charged with white phosphorus or thermate.

OTHER INCENDIARY WEAPONS

30. Incendiary weapons have also been developed to meet certain specialized requirements that do not fall within the preceding categories. Noteworthy among them are the devices that have been designed for firing vegetation and crop cultivations, although efforts to develop them have not been notably successful.

Chapter II

ACTION OF INCENDIARY WEAPONS AND THEIR NON-MEDICAL EFFECTS

31. Incendiary weapons may damage or destroy most types of material. They may initiate fires that subsequently take hold and spread through their surroundings. Four matters of particular significance emerge from the present chapter:

(a) Incendiary weapons may severely damage structures, machinery and other items of equipment even where such targets are made predominantly from non-combustible materials. To take a battlefield example, napalm is capable of immobilizing armoured vehicles and putting other heavy weapons out of action.

(b) If a fire takes hold and spreads, it may soon become uncontrollable, bringing indiscriminate destruction to almost everything in its path.

(c) In built-up areas, the spread of fire depends largely on the density and nature of buildings in the area. Densely built-up zones where wood is the predominant building material are particularly vulnerable to spreading fires.

(d) In rural areas, the probability of fire spread is largely determined by the climate, the topography and the prevailing weather conditions. The additional long-term ecological consequences, which could be severe, are largely unpredictable.

HOW INCENDIARIES START FIRES

32. Intensive-type incendiaries, because of their high burning temperature and compactness, are powerful emitters of radiation, which is one of the main reasons why they may be effective against poorly combustible targets. Heat transfer by convection, in the form of hot air currents or flames, is also important. Scatter-type incendiaries operate more by convection than radiation, and are therefore most destructive when the burning agent sticks to vertical surfaces. An explosive charge in the weapon distributes gobbets of burning agent (e.g., white phosphorus or napalm) which may then stick to walls, floors, ceilings, furniture, and so forth, creating numerous foci of fire.

SPREAD AND DURATION OF FIRES

General Features

33. Whether a fire takes hold and spreads through an area is a complex matter that depends on the interaction of many factors. Among them are the characteristics and distribution of the different types of material

in the area, the prevailing weather conditions, and the local topography. In many situations, the wind velocity and the dryness or dampness of the target materials are particularly important. The behaviour of the fire also depends on the number and distribution of the foci from which it springs: to take an illustration from the Second World War, the scattering of large numbers of small incendiary bombs over a town was often more likely to burn it down than the same tonnage of larger bombs.

34. An incendiary attack on a city is usually designed to create what is called a mass-fire. This occurs when the fires spreading from several foci merge into a single conflagration. This may then build up to an enormous and uncontrollable pitch of violence, only subsiding when virtually nothing combustible remains. Mass-fires may be of two kinds. In one, the fire-front is moving, often with great rapidity, in the direction of prevailing winds. In the other, the fire is stationary, with very fast currents of air being sucked into it from all directions by the intense updraught created by the conflagration. Virtually everything combustible in the area is consumed. Mass-fires of the second kind are known as fire-storms, and are even more destructive than the first kind. They are not known in wildland, only in urban areas, and even there they occur only under rare circumstances.

Wildland fires

35. The spread of fire through wildland is largely determined by the velocity of the wind and by the size, disposition and moisture-content of dead and living vegetation in the area. Wildland fires can become very large. The cooling period of a fire can be very long. Forest fires have even been known to smoulder on all winter under a blanket of snow, becoming active again the following summer when the fuels dry out.

Urban fires

36. Concerning the start of urban fires, it is fairly well established that the moisture content of the fine fuels in the interior of buildings is a determining factor, and that fuel dryness depends upon the humidity of the air in the building. Generally speaking, the initiation of urban fires is less weather-dependent than the initiation of wildland fires.

37. There are several factors that determine how fires spread inside rooms, from room to room and from building to building. The initial phase of the fire is critical for its further development and determines whether extensive damage will result. It is therefore at this phase - during the initial spread of fire away from the burning incendiaries - that counter-measures are best directed. A few minutes only may elapse before the combined heat production of the incendiary and of the materials it has ignited leads to a "flash-over" characterized by the sudden ignition of all combustible materials in the room.

38. Once one room in a building is burning in this manner, the fire soon spreads from room to room. The time taken for this to happen depends on the design and construction of the building. A wooden frame house may

be enveloped by flames in less than half an hour; a brick building may still be saved from complete destruction even after one hour. Fire tends to spread upwards and horizontally through a building. Downward spread, which is slower than upward spread, generally requires that a floor be burned through, burning fragments then dropping to the floor below. It follows that incendiary bombs tend to be more destructive if they succeed in penetrating through several floors of a building before igniting.

39. The spread of fire from one building to another usually follows the ignition of exterior surfaces, particularly roofs. This occurs most easily between adjoining buildings, but even where there is a gap of several tens of metres, a neighbouring house can be set on fire by thermal radiation. Once flames from burning houses begin to project into the open air, the subsequent spread of fire is largely wind-controlled. It is generally accepted that surface wind-speed is the most important weather factor influencing the spread of small urban fires. During the fire-raids on cities during the Second World War, wet weather and precipitation seem to have had little effect on over-all fire-raid damage.

40. Urban mass-fires may occasionally take the form of fire-storms. In a fire-storm, the induced inrush wind-velocity exceeds that of the prevailing wind, thus preventing any significant spread outside the periphery of the fire, and causing it to burn more intensely. The temperature in a fire-storm area may be around 1500°C, and the fire-storm may continue for three to four hours. Fire-storms are considerably more destructive than other urban fires and cause a much greater loss of human life. They rarely, if ever, occur naturally, and even during massive incendiary air raids they have proved uncommon. In Germany, scores of cities were subjected to fire-raids during the Second World War, but fire-storms occurred in no more than five of them.

41. Fire-fighting in a city subjected to incendiary attack is a very difficult undertaking and in some cases its results may be marginal at best. It is essential that the fire-fighting process be started as early as possible. The extinguishing of burning magnesium bombs using sand or earth, for example, is not difficult, but as soon as the fire begins to take hold in the city the fire-fighting problems will rapidly become insurmountable. Once a mass-fire has started, fire-fighting efforts may be successful but only at the fringes of the fire zone. Within the fire zones, the safety of the inhabitants can, of course, be best assured by evacuation. If this is not possible, shelters may have to be relied upon, but to be effective these need to be elaborate and, in most cases, specially constructed. Shelters like this usually do not exist in cities.

GENERAL EFFECTS OF FIRE

42. The mass-fire environment is a complex and changing one. Above all, it is intensely hot. All the damage that it causes in buildings and material, and much of the damage it does to life, will be due to heat. Temperatures in excess of 1100°C can be expected within, immediately above, and downwind of strongly burning structures. Hot fires generate powerful air currents which may appear as strong ground-winds of varying velocity. In a fire-storm, the currents may be strong enough to sweep people off their feet and suck them into the blaze.

43. A large, strongly burning fire consumes oxygen in vast quantities. Particularly inside buildings, or in places where ventilation is at all restricted, this may deplete the local air to the point where human or animal life may be endangered. As oxygen levels fall during the fire, increasing concentrations of carbon monoxide build up. A toxic hazard is therefore created, and this may become acute over wide areas, particularly in confined spaces. A substantial proportion of the air-raid victims of the Second World War died from carbon monoxide; on some occasions this led observers to suppose that chemical warfare agents had been employed. Other toxic gases, vapours or smokes may appear depending upon what is burning.

SPECIFIC EFFECTS OF FIRE ON MATERIEL

44. The heat generated by incendiary agents, or during conflagrations, is capable of bringing about profound physical and chemical changes in most materials. The resultant damage is not confined to materials that are combustible. Metal construction materials such as steel, cast iron and aluminium alloys do not generally take fire, mainly because there is usually insufficient oxygen present. Chemical changes may occur, such as oxidation, but they are confined to outer surfaces. The main effect of heat on metals is to cause softening and loss of mechanical strength.

45. Few, if any, buildings are immune to damage by fire. Whatever they are made from they invariably contain combustible furniture and fittings. If these catch fire, and the fire then spreads, even the most fire-resistant materials may not escape damage from the resultant heat.

46. Vehicles are particularly vulnerable to fire. Their upholstery, for example, is often highly combustible, and fire may soon spread to the petrol tank. Even military vehicles, which are generally better protected than civilian vehicles, may be destroyed or immobilized by fire. Armour-piercing weapons may inject incendiary materials into the vulnerable interior of armoured vehicles.

47. Machinery and other equipment may likewise suffer severe damage from fire. Electrical equipment is especially likely to break down. The consequences of damage of these types may range from the destruction of individual weapons or factory tools up to the breakdown of public utilities or the dislocation of great communication networks.

SPECIFIC EFFECTS OF FIRE ON THE NATURAL ENVIRONMENT

48. Fires may propagate themselves rapidly across wide tracts of countryside under certain climatic conditions and in certain types of vegetation. Wholesale destruction of crop cultivations and of other means of subsistence may result from this. Large-scale fires may also have longer-term ecological consequences. The soil may no longer be able to acquire or retain its nutrients, and its quality may deteriorate, while in some areas there may be a serious risk of erosion of the topsoil, either by wind or by

water. Previously fertile areas may thus be rendered barren. The elimination of a plant species from an area through the action of fire may be succeeded by invasion of the area by a different species. Similar effects may be observed in the fauna of areas affected by fire. One common characteristic of burnt-out forest areas is their rapid colonization by different insect species. These may constrain further regeneration of plant life and may, under some circumstances, lead to the establishment of new foci of human or animal disease.

49. The extensive use of incendiary weapons in rural areas, whether or not it is intentionally directed against cultivations or similar targets, may well produce wide-ranging destruction. In the short term, harvests may be lost on which the livelihood of large numbers of non-combatants depends. In the long term, depending upon the largely unpredictable outcome of the resultant ecological changes, irreversible damage may occur which has little or no bearing on the objectives for which the weapons were used in the first place.

Chapter III

MEDICAL EFFECTS OF INCENDIARY WEAPONS ON

ON INDIVIDUALS AND POPULATION

50. The main features of this chapter may be summarized as follows:

(a) Burn injuries differ from the wounds commonly caused by conventional weapons in the exceptional difficulty of their medical treatment.

(b) Although published information is scanty, napalm weapons appears to produce an exceptionally high proportion of deaths among their casualties compared with other weapons. Whether mortal or not, napalm injuries, like other burns, may be intensely painful.

(c) Recovery from burn injuries is slow, and during most of the period the patient remains in great pain. Napalm and white phosphorus burns are likely to leave him deeply scarred and disfigured f the rest of his life.

DIRECT EFFECT OF INCENDIARIES ON INDIVIDUALS

Type of burn injury

51. Skin is easily damaged by heat, the degree of damage depending upon the amount of heat. In medical practice, different categories of burn are distinguished according to their depth, their extent and their cause. The classification of a burn injury into a particular category - "first degree", "second degree", and "third degree" - indicates the depth of the burn and this together with its extent determines the type of medical treatment which is required. Third degree burns destroy the full thickness of the skin, including the hair follicles and sweat glands. Blisters rarely form. The sensory nerve endings are destroyed, so that there is no sense of touch. There is often attendant coagulation of fat, muscle and other deep tissue, which may later result in severe scar contractures and deformities. In peace-time practice, surgeons find it sufficient to use the above classification of burns. The use of napalm in war, however, has led to an increase

in the number of deep burns and experience in treating them. In the process of triage of such burns, doctors have established the special category of fourth-degree and even fifth-degree burns. These relate to burns that completely char the skin and extend into the deep tissue of the body, damaging the musculature and reaching to the bones and internal organs.

52. The threat to life of second- and third-degree burns for the injured depends on the extent, depth and localization of the burns and on a number of other factors, the principal one being the quality of, and accessibility to, medical aid. People with 40 per cent burns have a chance of survival if they are given all possible medical aid in specialized burn hospitals, but if more than 60 per cent of the surface is burned they usually die.

53. Third-degree burns, and deep second-degree burns that cover more than 10 to 15 per cent of the body surface, have a profound effect on the entire body, not merely on the afflicted areas of the skin. The victim is likely to go into a state of shock characterized by a grave and sometimes mortal derangement of the circulation. Toxic effects are likely to develop as poisons generated in the burnt area are carried around in the blood circulation. Moreover, there is always a severe risk of infection of the burned tissue. Because of his injuries, the victim may be unable to eat, and even if he can, he will probably not wish to, through lack of appetite. People exposed to flames and heat may also suffer respiratory burns.

Effects of napalm and related incendiaries

54. Napalm may burn, asphyxiate or poison its victims. Its adhesiveness, high burning temperature and prolonged burning time lead to deep burns. The asphyxiating and toxic effects, when they occur, stem from the combustion of oxygen in the local air, from the heat of the combustion products, and from the large amounts of carbon monoxide that are generated in the process.

55. It must be stated that, despite the large quantities of napalm that have been employed in war, the medical literature so far contains rather little information on the direct effects of napalm and its combustion products on the human body. One team of surgeons serving in a civilian hospital in an active conflict area in South Viet-Nam in 1966 and 1967 concluded, because of the infrequency with which they saw napalm burns, that its victims were more likely to be killed than to require medical aid. Another field observation suggests that about a third of the casualties are likely to die within half an hour. If this is so, napalm must be one of the most lethal weapons in existence today.

56. The principal characteristic of napalm burns is their combination of depth and multiplicity. In the manner in which the agent is commonly employed, it is scattered over its target in large gobbets. This means that people occupying the target area, if they are hit at all by the agent, are likely to be hit by a substantial mass of it. Moreover, what also tends to happen is that when they try to remove the napalm from their skin, or strip off their burning clothes, they spread it over other parts of their bodies, particularly their hands.

57. Napalm burns are particularly likely to induce a state of shock. In severe cases of shock, the supply of oxygen reaching such organs as the brain, heart, liver and kidneys may drop below life-sustaining levels. There are different types of shock. "Neurogenic" shock may succeed pain, fright or other sudden emotional distress. "Hypovolemic" shock is caused by a lowered blood volume due, for example, to loss of blood or plasma from a wound or burn. Napalm victims exhibit both these types of shock, this probably being the major cause of death among those who die quickly.

58. In addition to shock, carbon monoxide poisoning may be a second contributory factor in the high and rapid mortality among napalm victims. Even small quantities of inhaled carbon monoxide can deprive the body of the oxygen it needs for survival, thereby provoking death in a matter of minutes. Sublethal exposures to the gas can result in permanent injury to the central nervous system and the heart.

59. In addition to shock and carbon monoxide poisoning, respiratory burns are the third major contributory cause of deaths from napalm. Napalm victims are likely to inhale large quantities of hot air and combustion products and may then be asphyxiated.

60. A further factor that contributes to the high morality rate among napalm casualties is the difficulty and complexity of the medical treatment which burn injuries require. In countries where medical resources are limited, napalm casualties may have little chance of receiving medical attention in time.

61 The burns of napalm casualties who do not die rapidly are likely to become heavily infected. The damaged tissue provides a culture medium that is particularly favourable to the growth of bacteria. The casualties are also likely to develop severe anaemias through destruction of red blood cells in the burn sites.

62. If he stays alive through the first day, a badly burned napalm victim will remain in a critical state for the next 30 to 40 days. During this period, the other complications referred to above will often result in death despite intensive medical care. Less than 20 per cent of such casualties are likely to last through to the period of convalescence. They will then have to come to terms with their deformities and disabilities and the grave emotional consequences that these will inevitably have for them.

Effects of white phosphorus

63. White phosphorus, like napalm, commonly produces deep burns that may sometimes be very extensive. The agent is usually scattered as a mass of sticky particles, and each of these may adhere to a person's skin, continuing to burn until isolated from air or fully burnt out. Phosphorus burns of the hand, wrists or feet, for example, may (like other deep burns) result in partial or total disablement of these extremities after healing.

63a. Phosphorus lodged in the tissue may produce systemic poisoning after entering the circulation. It is a powerful protoplasmic poison, and as such it may damage all vital cells that it reaches. This can have many consequences, several of them potentially lethal, notably the damage to the liver, heart, kidneys and the organs that generate blood cells. Whether these toxic effects are manifested, however, depends on the extent to which white phosphorus is absorbed into the circulation from surface wounds.

Effects of other incendiaries

64. Thermite and thermate incendiaries, when they burn, scatter droplets of molten iron. People in their immediate vicinity are therefore likely to

experience a multiplicity of small deep burns, with particles of iron lodged in the skin. Similar effects are produced by magnesium incendiaries.

EFFECTS OF CONFLAGRATIONS ON POPULATIONS

66. People may die or suffer injury during incendiary attacks both from the direct effects of incendiary agents that have just been described, and from the indirect effects that result from the fires which the incendiaries initiate. Additional hazards to human life develop in the course of such fires, but in the main their effects do not differ in kind from the direct effects of incendiary agents.

Physical effects

67. From the point of view of the effects on the human body, an extremely high environmental temperature is the principal characteristic of mass-fire. This will lead to a large number of deaths from asphyxiation, caused by thermal damage to the respiratory tract. It will also lead to burns that range in intensity from those of the first degree among people on the periphery of the blaze, up to the grisly phenomenon of the charred and shrivelled corpses that were found in large numbers after some of the Second World War fire raids.

68. Air raid shelters commonly failed to provide the inhabitants of cities with protection against massive fires caused by incendiary attacks during the Second World War. Insufficient thermal insulation often meant that the shelters became lethally hot. People who did not enter air raid shelters often had a better chance of remaining alive than people who did, for the flames raging in the surrounding areas tended to suck the air out of the shelter, replacing it with a lethal mixture of carbon monoxide, smoke and other combustion products. Some of the large-scale incendiary bomb attacks on cities conducted during the Second World War proved as destructive as the atomic bombs dropped on Hiroshima and Nagasaki. On average, there were 20,000-30,000 casualties in each German city subjected to major air raids. Sixty per cent of these casualties remained alive and in need of medical aid. The consequences of an incendiary attack on a population centre may therefore be catastrophic.

Psychological effects

69. Most human beings seem to have an inbred fear of fire, and the psychological effects of incendiary weapons are commonly listed among their military attractions. The use of agents such as napalm or white phosphorus, which cling to surfaces and to fleeing people while burning, cannot fail to increase the over-all psychological impact. Coupled with a general breakdown of communications and public utilities and services, the result could well be mass panic, with all its consequences for survival procedures that might otherwise be effective.

MEDICAL COUNTERMEASURES AGAINST INCENDIARY ATTACK

70. The proportion of burn casualties among the victims of war has been rising steeply. During the nineteenth century, burns probably accounted for no more than one per cent of battlefield injuries. The figure was not much higher during the First World War. During the Second World War, the proportion increased, due mostly to the petrol burns that were an inevitable consequence of mechanized warfare. The Second World War also brought with it a sharp increase in the proportion of non-combatant casualties among the victims of war, a trend which has not been reversed in subsequent conflicts. In part this is because of an increasing reliance upon area weapons, which, by their indiscriminateness, are especially likely to harm non-combatants living around their targets. Incendiaries have proved to be one of the most destructive and widely used weapons in the attack on urban targets. They have also become increasingly relied upon in recent conflicts as battlefield area weapons, particularly fire-bombs containing napalm.

71. There are six distinct phases in the medical treatment of a burn casualty. The following description relates primarily to napalm victims, but much the same applies for casualties of mass conflagrations or of other incendiary weapons. In the case of white phosphorus burns, the process is more complicated; special efforts have to be made to remove phosphorus particles that are still burning from the flesh.

72. The first phase is the transport of the victim to a medical aid post. A man in a state of shock, as he might be even from mild napalm burns, may be helpless and too weak or fearful to move.

73. The pain, which is in part responsible for the initial (neurogenic) state of shock, must be relieved by analgesic agents, such as morphine. The secondary (hypovolemic) shock must then be controlled, together with the consequences of the toxic products of burnt tissue that enter the blood circulation. For a week or more, therefore, continuous transfusions of blood plasma, whole blood, and other fluids, will have to be made into the patient's veins. Respiratory support will also be needed.

74. While this is continuing, stringent measures need to be taken to prevent the burns from becoming infected. Amputations may have to be performed if extensive charring has occurred and infection cannot be checked.

75. Meanwhile the patient will require careful metabolic support. The loss of protein at burn sites must be compensated with special nutritional supplements.

76. The fifth phase in the treatment is that of late reconstruction and rehabilitation. This involves the use of surgery to release flexion contractures in the skin, and to restore function to extremities and other organs. This phase is a prolonged and painful one.

77. Finally the patient must be given emotional support to sustain him through the long period of pain and isolation, and above all, to assist his psychological adjustment to extensive scarring and other deformities.

78. It may be estimated that the requirements for treating a thousand wartime casualties having 30 per cent burns would include 8,000 litres of plasma, 6,000 litres of blood, 16,000 litres of Ringer's lactate solution (a balanced salt solution), 250 trained surgeons and physicians, and around 1,500 skilled attendants. Each patient would require a hospital bed for anything up to four or five months. The degree to which these requirements can be fulfilled determines the proportion of the casualties that could be expected to survive.

Chapter IV

INCENDIARY WARFARE AND ITS CONSEQUENCES

INCENDIARY WARFARE BEFORE THE SECOND WORLD WAR

79. The development of incendiary weapons, like that of most other modern armaments, has been progressing for many centuries. Fire is an ancient accompaniment of warfare, and has regularly been used to lay waste enemy habitations, possessions and cultivations. There is a difference, however, between fire as an instrument of depradation or of scorched-earth tactics, and fire as a weapon. The documented history of incendiary warfare stretches back for some three millennia. Assyrian bas-reliefs have been found, for example, which show the defenders of a city besieged in the ninth century B.C. repelling siege engines by throwing burning liquid over them. The rise of artillery that followed the introduction of gunpowder brought with it certain new types of incendiary projectiles, thus continuing a line of development that stretches back to the fire arrow. These new incendiary devices were soon eclipsed by explosive artillery shells, however, and it was not until the latter part of the eighteenth century that their use again became at all widespread.

80. As in so many other areas of military technology, rapid developments in incendiary weapons were made during the First World War. The most portentous of the techniques was the use of airships and aeroplanes to drop incendiary bombs on targets deep in the enemy rear or in the enemy homeland. Operations were relatively small in view of the limited capacity of contemporary aircraft. Early in the War, the German Army introduced the flamethrower, which it had been developing during the pre-war years. Incendiary projectiles fired from artillery or trench-mortars were employed widely. They were used in attempts to set fire to opposing trench systems or support facilities. They were also used as anti-personnel weapons: time fuses were fitted so that they detonated in the air, raining down a shower of burning phosphorus particles or molten iron.

81. In the course of the Italo-Ethiopian War and the Spanish Civil War, portable and tank-mounted flamethrowers were used. So were incendiary bombs in attacks on population centres. Similar techniques were employed in the Sino-Japanese conflict. These events stimulated wide military interest, and incendiary warfare development programmes were initiated or accelerated by all the major military Powers.

INCENDIARY WARFARE AGAINST POPULATION CENTRES AND RELATED TARGETS

82 This section describes the use of incendiary weapons during and since the Second World War against civilians, against their natural environment and against their means of production and subsistence.

Incendiary air raids on cities

83. During the first year of the Second World War, the use of incendiary weapons was largely confined to the battlefield. However, in September 1940, an air attack on London that included the use of incendiary bombs began a process of escalation that was to establish the incendiary air attack as the most devastating instrument of mass-destruction yet employed in warfare. Around 100,000 tons of bombs were dropped on 60 Japanese towns and cities, practically all of them incendiaries. The air raids killed 260,000 people and injured another 412,000. Nearly two and a quarter million homes were destroyed and 9.2 million people left homeless. In Germany, 1.35 million tons of bombs were dropped on population centres, 49 towns and cities being singled out for large-scale attack. Although less than a quarter of the bombs were incendiaries, more than three quarters of the resultant civilian casualties were due to fire. There are estimated to have been 1.4 million civilian air-raid casualties in Germany, of whom 600,000 died. Civilian air-raid casualties in the United Kingdom amounted to 147,000, including 61,000 dead.

84. The air raids that caused the greatest devastation in Germany during the Second World War were those directed against Hamburg in the summer of 1943 and against Dresden in February 1945. Both of them involved huge tonnages of incendiary weapons, and both succeeded in creating fire-storms. The number of dead was enormous, but in neither case are reliable statistics available. Around 135,000 people are believed to have been killed during the attack on Dresden. The intensity and co-ordination of the attack on Hamburg were sufficient to build up a huge conflagration that in turn developed into a cyclone-like fire-storm. The asphalt of the streets burned. About half of the town-dwellings were totally destroyed. Probably 43,000 or more people were killed, and it took more than two months to dig their corpses out of the debris.

85. The attack on Tokyo on the night of 9-10 March 1945 was conducted entirely with incendiaries. In terms of the number of dead, it exceeded in destructiveness either of the subsequent nuclear attacks on Hiroshima and Nagasaki. It is estimated that 83,800 people died and 41,000 more were injured. More than a million were left homeless.

86. Since the Second World War, incendiary air attacks against population centres have continued to be practised. One major example occurred during the Korean war, when a large part of the city of Pyongyang was destroyed by incendiaries in January 1951.

108. The rapid increase in the military use of incendiary weapons, especially napalm, during the past 30 years is but one aspect of the more general phenomenon of the increasing mobilization of science and technology for war purposes. The long upheld principle of the immunity of the non-combatant appears to be receding from the military consciousness. It is therefore essential that the principle of restraint in the conduct of military operations, and in the selection and use of weapons, be reasserted with vigour. Incendiary weapons, in particular napalm, are a fitting subject for renewed efforts of this type.

109. The law of armed conflict is the formal expression of the principle of restraint. There exist well-established juridical norms that have a bearing on incendiary warfare in view of the properties of incendiary weapons. These provisions require close study with a view to further improvement.

110. Most of the norms referred to in the previous paragraph are embodied in The Hague Regulations of 1907, particularly articles 22 3/ and 23(e)4/ which, according to many experts, have become part of customary international law. The principle of a distinction between military targets and civilian population also occurs in the body of international customary law. Attention may be drawn, for example, to the 1923 draft rules relating to aerial warfare.5/ The principle of the immunity of the non-combatant has been reaffirmed since then, notably by the United Nations General Assembly (resolutions 2444 (XXIII) and 2675 (XXV)) and by an International Conference of the Red Cross (XX International Conference, Vienna, 1965, resolution XXVIII). The principle is also to be embodied in the draft Additional Protocol(s) to the Geneva Conventions of 1949 being prepared by the International Committee of the Red Cross. Also requiring consideration in view of the toxic and asphyxiating effects of many incendiaries is the 1925 Geneva Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare.

111. It is not the purpose of this report to assess the use of incendiary weapons in the light of legal and humanitarian principles. Nevertheless, in view of the facts presented in the report, the group of consultant experts wishes to bring to the attention of the General Assembly the necessity of working out measures for the prohibition of the use, production, development and stockpiling of napalm and other incendiary weapons.

3/ Article 22 states: "The right of belligerents to adopt means of injuring the enemy is not unlimited".

4/ Article 23 (e) states that it is forbidden "to employ arms, projectiles, or material calculated to cause unnecessary suffering".

5/ Article 22 states: "Air bombardment for the purpose of terrorizing the civil population, of destroying or damaging private property not of military character or of injuring non-combatants is prohibited".

REDUCTION OF THE MILITARY BUDGETS OF STATES PERMANENT MEMBERS OF THE SECURITY COUNCIL BY 10 PER CENT AND UTILIZATION OF PART OF THE FUNDS THUS SAVED TO PROVIDE ASSISTANCE TO DEVELOPING COUNTRIES

A/9770/Rev.1

I. INTRODUCTION

1. The origin of this particular study is to be found in an initiative of the Union of Soviet Socialist Republics specifically linking disarmament and development. On 25 September 1973, the Union of Soviet Socialist Republics proposed to the General Assembly, at its twenty-eighth session, that it should include in its agenda, as an important and urgent question, an item entitled "Reduction of the military budgets of States permanent members of the Security Council by 10 per cent and utilization of part of the funds thus saved to provide assistance to developing countries" and it included in the proposal a draft resolution.1/ In the course of the debate certain differences of opinion emerged concerning the Soviet proposal. In order to preserve the impetus provided by this proposal, the representative of Mexico proposed a second resolution of a procedural nature. The General Assembly, at its 2194th plenary meeting, on 7 December 1973, adopted simultaneously resolutions 3093 A and B (XXVIII) initiated by the USSR and Mexico respectively and bearing the same title as the item.

2. By resolution 3093 A (XXVIII), the General Assembly recommended that all States permanent members of the Security Council should reduce their military budgets by 10 per cent from the 1973 level during the next financial year; appealed to those States to allot 10 per cent of the funds so released for the provision of assistance to developinng countries; expressed the desire that other States, particularly those with a major economic and military potential, should act similarly; and established the Special Committee on the Distribution of the Funds Released as a Result of the Reduction of Military Budgets to distribute the funds released, for the provision of assistance to developing countries.

3. By resolution 3093 B (XXVIII), the General Assembly, "conscious that the United Nations has been unable to study this important question with the required depth and care" requested the Secretary-General to prepare, with the assistance of qualified consultant experts appointed by him, a report on the reduction of the military budgets of the permanent members of the Security Council, which should cover also other States with a major economic and military potential, and on the utilization of a part of the funds thus saved to provide international assistance to developing countries; called upon all Governments to extend their full co-operation to the Secretary-General to ensure that the study was carried out in the most effective way; and invited the Secretary-General to transmit the report to the General Assembly for its consideration at the twenty-ninth session.

4. Pursuant to this resolution, the Secretary-General appointed the Group of Experts. We have considered the mandate for our work as that set forth in resolution 3093 B (XXVIII); at the same time we have taken into special con-

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1/ Official Records of the General Assembly, Twenty-eighth Session, Annexes, agenda item 102, document A/9191.

sideration the specific recommendations made in resolution 3093 A (XXVIII) and have also taken into account the discussions of the General Assembly at its twenty-eighth session.

II. MILITARY EXPENDITURE AND DEVELOPMENT AID[2/]

5. The only figures of total world military expenditure that are available are unofficial estimates, and we have followed the practice of previous reports in using the figures collected by the United States Arms Control and Disarmament Agency (ACDA) and the Stockholm International Peace Research Institute (SIPRI). In the previous reports, the estimate given for the year 1970, at 1970 prices, was around $200 thousand million. From 1970 to 1973, there has been a further small rise in real terms; one source shows this as a 5 per cent rise in volume, the other as a 1 per cent rise. In addition, however, there has been a very substantial rise in prices, particularly in the market economies. As a consequence, the latest available estimate of world military expenditure, for 1973, is $205-$235 thousand million at constant (1970) prices, and it is $240-$275 thousand million at current (1973) prices. This figure is larger than the combined estimated product of the developing countries of South Asia, the Far East and Africa combined, and much larger than that of Latin America.

6. The basic pattern of world military expenditure in the post-war period has tended to rise strongly in periods of crisis and war, as at the time of the Korean War or the Viet-Nam War. It has then levelled off for a number of years, but without falling much. Once a new and higher level of military expenditure has been established it tends to be maintained. We have taken as the long-term trend the average rise from 1961 to 1973. This shows a volume rise of 3 per cent a year. At present-day prices, this is equivalent to an annual addition of the order of $7 to $8 thousand million to the world total.

7. The NATO and Warsaw Pact countries in the early 1960s accounted for some 90 per cent of the total; now the figure is nearer 80 per cent. The developing countries, whose share of the total of world military expenditure was 5.5 per cent in the early 1960s, now account for about 11 per cent.

8. The dynamics behind this long-term rising trend in world military expenditure are complex: there is not a simple, single "world arms race", but, rather, different forces are at work in different areas. Among the major military Powers, for example the form it takes is primarily technological. The share of the major military budgets devoted to research and development (R and D) reached 10-15 per cent in the early 1950s and has stayed at that level since. World spending on military research and development is now of the order of $20 thousand million annually, and it occupies the time of some 400,000 scientists and engineers around the world.[3/] This technological arms

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2/ This chapter is concerned with military expenditure, rather than military budgets, since there are no aggregate figures for world military budgets.

3/ SIPRI Yearbook of World Armaments and Disarmament, 1974 (Stockholm, Almquist and Wicksell, 1974), p.141; and Stockholm International Peace Research Institute, Resources Devoted to Military Research and Development: An International Comparison (Stockholm, Almquist and Wicksell, 1972).

race in the developed world has continued in spite of a marked relaxation in tension in recent years.

9. The forces behind the intense development and exploitation of technology for military purposes cannot then simply be explained as an "action/reaction" process in a world of increasing tension. One explanation is that modern weapons have now a very long gestation period or lead-time. It may take 10 years from the initial design to the final deployment of a new fighter. Consequently, military authorities tend to focus their attention, not on what the other side has already produced, but on possible future developments. Then again, technical and industrial teams are built up to design and develop types of military equipment. When one project is completed, another project is found for them. There are also economic and bureaucratic forces at work. Firms who derive a major portion of their sales from the manufacture of armaments and bureaucracies are concerned to maintain their positions.

10. In the developing countries, where the rise in military spending in recent years has been relatively rapid, the forces are of a rather different kind. Some new States are building up their armed forces from a low base. In other cases, there are active conflicts. Countries in the developing world are, in general, dependent on the industrialized nations for the more advanced and complex weapons; and they are acquiring them, by gift or purchase, to an increasing extent. Some countries within this group are beginning to establish their own military production facilities.

11. There are thus strong world-wide forces behind the long-term upward trend in world budgetary expenditures for military purposes. The same, unfortunately, cannot be said for aid to developing countries. There is a marked contrast, both in the size and in the trend of these two budgetary items. In total, the developed countries appropriations for military purposes are some 20 times their appropriations for development aid. Comparing the present day with the early 1960s, the share of output which these countries devote to military purposes has fallen a little (see table below). Unfortunately, the share going to aid — apart from being so much smaller — has also fallen, even more rapidly.

ESTIMATES OF THE SHARE OF GROSS NATIONAL PRODUCT DEVOTED (*a*) TO MILITARY EXPENDITURE (*b*) TO OFFICIAL DEVELOPMENT ASSISTANCE, BY THE DEVELOPED COUNTRIES

	Percentage of GNP			
	1962–1964	*1965–1967*	*1968–1970*	*1971–1973*
(*a*) To military purposes:				
United States Arms Control and Disarmament Agency (ACDA) estimate ..	8.7	7.9	7.7	6.6
Stockholm International Peace Research Institute (SIPRI) estimate	7.8	7.2	7.2	5.9
(*b*) To official development assistance	0.40	0.35	0.29	0.26

SOURCE: (*a*) To military purposes: *SIPRI Yearbook of World Armaments and Disarmament, 1974* (see foot-note 6 above); United States Arms Control and Disarmament Agency, *World Military Expenditures and Arms Trade, 1963–1973* (Washington, D.C., US Government Printing Office);

(*b*) To official development assistance: Organisation for Economic Co-operation and Development, *Development Co-operation, 1973 Review* (November 1973); and United Nations Conference on Trade and Development (UNCTAD) estimates.

III. REDUCTION OF MILITARY BUDGETS

A. OBJECTIVES: THE ECONOMIC AND SOCIAL CONSEQUENCES OF MILITARY BUDGET REDUCTIONS

12. The objectives of a reduction in military budgets are clear. The first is that, as a measure of arms control and disarmament, it should be a step along the road to a more peaceful world. The second objective is to release resources for economic and social welfare; and these released resources should be used both for the benefit of the State making the reduction and, through international assistance, for the benefit of developing countries - a view which the Group emphatically endorses.

13. If military budgets were reduced, this would help to improve the general international climate. The arms limitation agreements so far reached are evidence of this. They have been important, not only in their own right, but also because they have helped to strengthen international confidence.

14. The economic benefits which could be derived from military budget reductions are equally indisputable. We would like to single out one point whose saliency has increased in the last three years. During these years, there has been a marked increase in world-wide concern about the longer-term adequacy of the world's natural resources; there is a greater recognition that some resources are indeed finite, and less easy assurance that adequate substitutes will be developed and produced in time. To take one example: it is widely argued that by the end of this century, formidable new civil technological advances will be needed if the world is to provide a tolerable standard

of living for its inhabitants. In this light, the employment of nearly half a million scientists and technologists on developing weapons of war seems even more of a waste than it did before.

15. The alternative potential uses of the resources freed from military expenditure are myriad. Certainly there would be transition problems. None the less, we are still prepared generally to endorse the conclusions of the report on the economics of disarmament4/ that the problems of transition can be met.

16. Developed countries reducing military budgets would understandably employ a substantial part of the resources released for their own use. There is indeed a danger in the present world climate of opinion that countries would pre-empt the whole of the released resources for their own use. If this were to happen, the consequence would be that the relative gap in the standard of living between the developed and developing world would widen even further. Hence the importance of the provision in the resolution which provides our mandate - that a portion of the funds and resources saved should be devoted to international assistance to developing countries. If the major military Powers were to channel approximately 1 per cent of the resources currently devoted to military expenditure to development aid, the addition to the flow of aid would probably be of the order of $2 thousand million, at 1973 prices. This would increase that flow by no less than 20 per cent.

B. REDUCTION OF MILITARY BUDGETS IN ACCORDANCE WITH GENERAL ASSEMBLY RESOLUTION 3093 A (XXVIII)

17. The proposal for reductions in military budgets was addressed in the first instance to the permanent members of the Security Council; it seemed reasonable that the first steps should be taken by those countries -- all nuclear Powers whose military expenditure was highest. However, the resolution expressed the desire that other States -- particularly those with a "major economic and military potential" -- should also join in. This would have the advantage that cuts in the military budget of permanent members of the Security Council would not be offset by increases in the budgets of their allies in military blocs.

18. The proposed reduction in military budgets is a single-stage measure - a cut of 10 per cent in the published military budget for the 1973 financial year. The measure was envisaged by the sponsor as five concurrent unilateral reductions; in this way it was hoped to avoid the complex problems that would arise with a formal agreement. The resolution also proposed a quantitative link between the reduction in the use of resources for military purposes and the increase in aid; that 10 per cent of the cut should be devoted to international assistance for developing countries.

4/ Economic and Social Consequences of Disarmament (United Nations publication, Sales No. 62.IX.1).

C. MILITARY BUDGET REDUCTIONS: CONSIDERATION OF ALTERNATIVE OPTIONS

19. The Soviet proposal is one way to reduce military budgets; it concerns the total only, for a single year, and involves a reduction by a specific percentage. Here we also consider certain other options. Such options could, for example, cover some particular component of the total - such as research and development (R and D). Then again the form of the limitation proposed can be a percentage, it could also be a ceiling, or the reduction might be prescribed in absolute terms. The reductions proposed can obviously be large or small, and can be for a single year or for longer periods. One of the interesting variations examined is an expenditure cut which is linked with a limitation on some component of military force; it might be linked, for example, with some limit on the number of men under arms. The mode of agreement can vary - from mutual example to formal agreement.

IV. MEANING AND MEASUREMENT OF MILITARY EXPENDITURE

A. SCOPE AND CONTENT OF MILITARY BUDGETS

20. A prerequisite for negotiating the reduction of military budgets in two or more countries is agreement on what is and what is not to be included in military budgets. The problem of defining the scope and content of a complex aggregate is encountered in many international comparisons - e.g., of health or education - but it is critical where a State's decision on allocations to national security and international development assistance will depend directly on the measure of comparative military budget levels. Unfortunately, there is no accepted conceptual standard of the definition and coverage of the military sector. Moreover, the great variation in the range of activities included in military budgets prevents reliable quantitative comparisons without extensive adjustment of the basic data. To name but three examples of such divergences, some countries include the payment of military pensions in their military budget and others do not. Civil defence is sometimes included and sometimes excluded; indeed, in some countries private citizens are required to incur expenditure under this heading. In some countries, the cost of the development of atomic weapons has been borne by agencies other than the Ministry of Defence. Therefore, in the hope of providing a more precise yardstick with which military budgets can be compared, the following analysis focuses on States' expenditure for military purposes - in brief, military expenditure irrespective of either classification in State financial accounts or method of financing, within or without the government budget. The Group notes that there seems to be general agreement that military expenditure customarily includes outlays on the following: pay and allowances of military personnel; pay of civilian personnel; operations and maintenance; procurement of weapon systems; military research and development; military construction; military aspects of atomic energy and space; and stockpiles of military equipment and materials. There are also other expenditures which, under certain circumstances, could be treated as military expenditure - for example, outlays on civil defence, para-military forces and military aid.

21. For most agreements to reduce military expenditure, it may be necessary not only to delimit the totals but also to define component categories. Military expenditure may be classified by type of "input" (military wage costs, operations and maintenance, procurement of weapons, etc.) and also by functions (for example, strategic forces, general purpose forces, communications, command, etc.).

B. VALUATION OF RESOURCES IN THE MILITARY SECTOR

22. Negotiators attempting to agree on equivalent reductions in military budgets will be concerned to ensure, as far as possible, that these cuts do represent equivalent reductions in military power. It cannot automatically be assumed that this will be so. First of all, the military power of a country does not, of course, depend on the military expenditure of just one year; it depends on the total stock of military "capital" (weapons, bases, accumulated technical knowledge, and so on). Military expenditure in any particular year just maintains and adds to the pre-existing stock. So negotiators will have to have confidence, first in the reliability of the estimates and, then, in the acceptability of the initial levels of military capital.

23. Another reason why it would be difficult to forecast the effect on military power of a given cut is the difficulty of developing a set of relative prices for military goods and services which reflects their comparative usefulness in producing military power as perceived by national decision-makers.

24. Especially for agreements extending beyond a single year, there is the problem that rates of price increase differ considerably from country to country - particularly in recent years. Allowance would have to be made for differential price change to avoid inequitable effects on an agreement to reduce military expenditures. The construction of price indices to "deflate" military expenditure encounters not only the standard "index-number problems"5/ but also the difficulties of defining the output whose price change is to be measured. Rapid technological change makes the problem of separating price and quality changes more formidable for military than for civil goods. For example, it is difficult to disentangle that part of the sharply increased cost of a fighter aircraft which is due to pure price change from that part which reflects an increase in performance.

25. The comparisons of military expenditure among countries are analogous to comparisons within one country over time. For international comparisons, special rates for translating the military expenditure of different countries into a common currency - corresponding conceptually to the price indices used within one country - should be calculated and multiple answers are again unavoidable.

5/ The "index-number" problem refers to the awkward situation where the measurement of the average price change between two periods produces two possible answers depending on whether one uses quantities of the first or second period as weights in developing an aggregate average. Both solutions are equally valid.

V. REDUCTION OF MILITARY EXPENDITURE AS A DISARMAMENT MEASURE

A. SOME SPECIAL FEATURES OF AGREEMENTS TO REDUCE MILITARY EXPENDITURE

26. The interest in the reduction of military expenditure as a disarmament measure is connected with certain characteristic differences between such reductions and agreements limiting specific forces in physical units. Because they are couched in terms of money, agreements to reduce military expenditure can cover the whole spectrum of military activities, including such activities as research and development. Research and development is one of the most difficult of military activities to control in physical terms alone.

27. Agreements to reduce total military expenditure allow very considerable latitude to reallocate expenditure within the constrained total, thus putting fewer restrictions on the internal decision-making of the participant States.

28. Among the problems that often in the past have hindered the conclusion of formal agreements to reduce military expenditure has been the problem of verification, since such an agreement deals with economic aggregates rather than observable physical entities. But over the past half century there has been a very considerable change in the amount and quality of economic information available in many countries. To the extent that this change has taken place among States which might be participant to such an agreement, this factor may have helped to increase contemporary interest in the use of expenditure-reduction agreements.

B. EFFECTS OF MILITARY EXPENDITURE REDUCTIONS ON INTERNATIONAL SECURITY

29. We turn to the question of the effect of cuts in military expenditure on security - a matter which negotiators would obviously have very much in mind. This will clearly vary with different types of reduction. Here we consider three: first, an agreement to cut military expenditure in total only; secondly, such an agreement together with a subsidiary agreement to limit some particular expenditure component, such as outlays on strategic forces; and thirdly, a reduction of total military expenditure together with some limitations in physical terms - say, on the number of men under arms.

30. If the limitation were on the total of military expenditure alone, countries, in distributing the cuts among different categories of expenditure, would presumably try to maximize their security position and would assume that other signatories to the agreement would do the same. They might favour strategic forces rather than general purpose forces, for example.

31. Reallocations of expenditure under constrained totals might be stabilizing or destabilizing. A country's ability to reallocate expenditure

in a destabilizing way could be limited - but certainly not wholly prevented - if to the general cut in expenditure there were added some other limitations, for example, an additional limitation on spending on strategic forces. However, there is a clear dilemma: the more extensive the limitations, the less likely any disruption in the military balance - but the more onerous the limitations would be.

32. An increase in the flow of information might be a substitute for these additional limitations. If countries knew how others were reallocating their expenditure and were free to react themselves, the changes on the various sides would probably cancel out.

C. VERIFICATION OF A FORMAL AGREEMENT TO REDUCE MILITARY EXPENDITURE

33. The fourth and final question to be considered in this chapter is that of verification. Verification of an agreement is simply a procedure for obtaining and evaluating information about changes in a participating State's military expenditure. This may or may not require an exchange of information. If there were complete and absolute trust among States - so that each State were convinced that under no circumstances whatever, now or in the future, would other States attack it - then little if any information would be needed to support an agreement. Conversely, if two States totally and completely distrust one another, then even an enormous amount of information might not be sufficient for any agreement to be reached. Because information requirements vary with the degree of trust among States, it would obviously be wrong to attempt to lay down that certain types of agreement must, under all circumstances, need certain types of information.

34. For verifying an agreement to reduce military expenditure, it would be mainly economic and financial data which would be needed; some have already been described - such as the data necessary to compare budgets prepared on different accounting systems, and appropriate domestic price indices. In addition, material would be needed to enable a check to be kept on a number of financial and physical flows in the economic system.

35. Effective verification seriously conflicts with a country's desire to keep the nature of its military preparations secret. We can envisage a kind of information-disclosure ladder. Among the lower rungs in the phase of confidence building, military accounts might be published in expanded form with explanatory material. Successive rungs could be reached with increasing amounts and different types of economic and financial information, possibly up to and including the auditing of unit records through sample inspection.

36. The various technical issues involved in an agreement to reduce military expenditures are sufficiently complex to suggest that it might be reasonable to make a step-by-step approach.

VI. USE OF RELEASED RESOURCES FOR INTERNATIONAL DEVELOPMENT ASSISTANCE

A. SCOPE AND BACKGROUND

37. For purposes of our report, we do not need to establish a link between disarmament and development; our mandate does this for us. The Strategy of the Second United Nations Development Decade is to aim for a 6 per cent rate of growth for the developing countries. For the majority of developing countries, the achievement of this objective will call both for the full mobilization of domestic resources and for the enlisting of substantially increased foreign aid.

38. In this report, we are concerned with transfers of resources from Government military budgets; clearly, therefore, these transfers would be used to supplement official development assistance. Consequently, in this chapter we concentrate on the data for this total - official development assistance - rather than on data on flows from private sources. The mid-Decade target for this official flow of aid - a target which not all donor countries have accepted - has been set at a minimum net amount of 0.7 per cent of the gross national product at market prices of economically advanced countries. We have noted that the share of national product devoted to aid has been moving away from the target, instead of towards it - falling from around 0.4 per cent of national product in the early 1960s to 0.26 per cent in the early 1970s, so that it isnow much less than half what would be required to meet the target figure.

B. TRANSFER OF RESOURCES TO AID

39. The proposals which we are discussing here could be a very important move towards arresting and reversing this downward movement in the share of aid in national product. One possible option - in which, as indicated earlier, the main military Powers transfer 1 per cent of their military budgets to aid - would produce a figure of the order of $2 thousand million, which would be a 20 per cent addition to the world's official aid flow. Different options for military budget cuts would, of course, release different amounts and categories of resources. It is clearly important that the new flow discussed here should be a net addition to aid and that donor countries which give some undertaking to transfer military resources to aid should not reduce their other aid programmes. It is generally agreed that aid is very much less effective if it is sporadic than if it is continuous. Most development projects - such as dams, or road or railway construction - take a long time to complete. Therefore, it is those reductions in military expenditure giving rise to a continuing flow of aid which best serve the interests of developing countries.

40. It is generally true that the very rapid rate of inflation at the moment is tending so to erode the sums set aside for official development assistance that there is very little rise in real terms. The aid commitment for the future which might be made should be drawn up with provisions for appropriate adjustments to compensate for the rise in prices in donor countries. This would be a radical change in present practice.

C. NATURE AND CHARACTERISTICS OF THE ADDITIONAL AID FLOWS

41. First of all, in the past, aid has on occasions been used for the objectives of the donor country - political, military, or commercial - and as a consequence it has often not been deployed in the most effective way for the economic welfare of the recipient countries. We consider it, therefore, most important that donor countries should not be in a position to impose conditions on this flow of aid. This is not to say that the aid should be absolutely without conditions: certainly there should be conditions and criteria, some of what we suggest later. But they should be reached by international agreement, not imposed unilaterally by individual donor countries.

42. Secondly, there should be a high and growing concessionary element in this new flow of aid - that is, a high proportion of it should consist of grants or loans at low interest rates and easy repayment terms. A high concessionary element means that aid flows will be effectively "net" and will not have substantial delayed effects in reverse flows of interest and debt repayments.

43. The cost of servicing external debt in developing countries has been growing fast. The reverse flow of interest and capital repayments has been offsetting an increasing proportion of the gross inflow of public and private financial resources. If we take the figures for 81 developing countries, debt service was equal to 40 per cent of the gross inflow from developed countries in 1965; by 1971 the figure was 52 per cent.6/ The rising cost of debt means that net transfers - that is, the gross inflow minus capital amortization and interest payments - has been going up very slowly. Indeed, in real terms, net transfers to these 81 countries hardly rose at all from 1965 to 1971.

44. We do not know the exact proportion of official development assistance which is tied (that is, tied to purchases from the donor country). We know, however, that 80 per cent of official development assistance in countries members of the Development Assistance Committee of the Organization for Economic Co-operation and Development is bilateral - although this percentage has fallen a little in recent years - and there are reasons to assume that virtually all of this bilateral aid is tied. Tied aid has all the potential inefficiencies of bilateral trade and it makes it easier for the donor country to impose political or military conditions. It would be desirable for the new flow of aid which we envisage to be untied as far as possible - or at least to be granted in the framework of a policy designed to untie it gradually and completely. Further, this new aid should be used to reinforce the trend towards channelling aid through multilateral institutions. It would also be desirable that contributions be made as far as possible in convertible currencies.

6/ The figures cover inflows from countries which are members of the Development Assistance Committee. If they were extended to cover all donor countries, the conclusion would probably be reinforced.

D. CRITERIA

45. The General Assembly, in resolution 3093 A (XXVIII), also laid down that the distribution of the development funds envisaged under that resolution should be carried out with due regard to the following principle: distribution on an equitable basis, consideration being taken of the most urgent needs and requirements of the recipient countries, without discrimination of any kind.

46. The sponsor of the resolution (the Union of Soviet Socialist Republics) suggested that such assistance should in the first instance be rendered to those countries of Asia, Africa and Latin America which have suffered most from drought, floods, crop failure and other recent national disasters.

47. It was at about the time that this resolution was passed that the situation of those developing countries which possess no substantial mineral resources began to worsen considerably with the rise in commodity prices - particularly that of oil. In paragraph 2 of section X of resolution 3202 (S-VI) of 1 May 1974, the General Assembly requested the Secretary-General to "launch an emergency operation to provide timely relief to the most seriously affected developing countries". If resources from reductions in military budgets were to be forthcoming in time, they could usefully supplement the funds which have been made available for this purpose.

48. The problem of the criteria for aid is not an easy one. We note that three criteria have been canvassed in the literature on this subject: that aid should be given to the neediest; or to those countries which obtain the best returns; or to those countries which make the greatest national effort. In addition, from time to time regional and country analyses of aid flows have been made showing patterns for which it is difficult to find justification. All these criteria have something to be said for them; we consider that once the new flow of aid is established, the General Assembly should give guidance to the organ responsible for the distribution on the principles to be adopted. We consider that we should add one more criterion - or condition - for this particular flow of aid. Measures should be taken to ensure, as far as possible, that this aid should not be used by the recipient countries to increase their own military expenditure.

49. In view of the urgent needs of the developing countries, the greatest effort should be made to convert into international assistance without delay a proportion of the resources obtained from any future agreement on the reduction of military expenditure.

REDUCTION OF MILITARY BUDGETS,

MEASUREMENT AND INTERNATIONAL REPORTING OF MILITARY EXPENDITURES
A/31/222/Rev.1

I. INTRODUCTION

A. Origin and background

1. Pursuant to resolution 3093 B (XXVIII) of 7 December 1973, the Secretary-General, after consultation with Member States, appointed a Group of Consultant Experts which prepared the report entitled Reduction of the Military budgets of States Permanent Members of the Security Council by 10 per cent and utilization of part of the funds thus saved to provide assistance to developing countries.1/ Hereafter this will be referred to as the "1974" report".

2. At its thirtieth session, the General Assembly adopted resolution 3463 (XXX) on 11 December 1975 in which it, inter alia, requested the Secretary-General, assisted by a group of qualified experts appointed by him after consultations with Member States, to prepare a report containing an in-depth analysis and examination in concrete terms of four issues:

"(a) The definition and scope of the military sector and of military expenditures, as well as the classification and structuring of expenditures within the military budgets, with the over-all aim of achieving generally acceptable and universally applicable delimitations and definitions and a standardized accounting system, so as to permit effective comparisons of the military budgets;

"(b) The valuation of resources in the military sector, considering different economic systems and different structures of production within the military sector, with the purpose of examining methods concerning the relationships between resources and military output;

"(c) The deflation for price change in military production in different countries, with the aim of examining methods of measuring real expenditure trends over a period of time, taking into account differences between countries in the rate of price change;

"(d) The international value comparison and exchange rates relevant to military production, with the purpose of examining methods for accurate currency comparison of military expenditures".

B. Disarmament and development

3. Since the adoption of resolution 3093 B (XXVIII) in 1973, two objectives have been singled out by the General Assembly. One has been to

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1/ A/9770/Rev.1.

secure some degree of arms control and disarmament, and the other to release resources for alternative purposes, i.e. social and economic development, particularly in the developing countries.

4. The continuing global expansion of arms and forces, both nuclear and conventional, attests to the need for effective arms control. As indicated in the introduction to the report of the Secretary-General on the work of the Organization in August 1975, it has been estimated that the size of military programmes throughout the world has more than trebled during the post-war period, to a current level on the order of $US 300 billion.2/ From an arms control viewpoint, the rapid and accelerating advances observed in the field of military technology are particularly disquieting. In this connexion, expenditure limitations may have the advantage not only of encompassing research and development outlays but, also, by virtue of the comprehensive scope of such limitations, of possibly constraining qualitative improvements in military forces.

5. A reallocation of resources from military to civil purposes would provide possibilities for an increase in the rate of world economic growth. Some of the savings achieved by reduction of military expenditure could help augment the presently inadequate levels of assistance to developing countries. Compared to world military programmes with a magnitude of around $300 billion, official development assistance flows to the developing countries in 1975 amounted only to about $17 billion or roughly 6 per cent.

C. Objectives of the report

6. The present study follows the 1974 report in identifying and defining the object to be reduced - or, more generally, limited - as a participant State's expenditure for military purposes. In resolution 3463 (XXX) the General Assembly affirmed the need for a fresh effort to achieve "generally acceptable and universally applicable" definitions and measures as a prerequisite for international agreement to halt the growth of military expenditure. The central purpose of this study is to furnish the major components of a system of concepts, definitions and measurement procedures, along with a corresponding reporting structure, based on the requirements deduced from the logic of expenditure limitation.

7. In resolution 3463 (XXX), the General Assembly urged that an effort be made to develop definitions and procedures that would be "generally acceptable". If we are to make progress towards the goal of expenditure limitations, the condition of general acceptability must be satisfied by establishing definitions and a reporting system which are seen both to constitute concrete progress toward the goals established in resolution 3463 (XXX) and also to protect the vital national interests of the States concerned.

8. Therefore, the following criteria were applied to the development of solutions for the main issues of our mandate:

2/ Official Records of the General Assembly, Thirtieth Session, Supplement No. 1 A (A/10001/Add.1), sect. VIII.

(a) Reasonable comprehensiveness in the definition of the military sector and of military expenditure, balanced by pragmatic selectiveness in excluding extraneous elements;

(b) Identification of measurement objectives as close as practicable to the fundamental disarmament goal of the resolution;

(c) Consistency of valuations to ensure comparability over a period of time between States.

9. Although the Group of Experts has attempted to deal with the major issues that arise under the heading of measurement, it could not provide all the elements for a complete solution. Implementation of the international reporting system, which is the major recommendation of this report, would not resolve all the arms control problems of expenditure limitations. The Group of Experts reaffirms the view expressed in the 1974 report that solution of the measurement problem is only the first - although a very positive first - step towards realization of expenditure limitations. Particularly critical for successful negotiation of an expenditure limitation agreement is to solve the complex problems of verifying compliance with the agreed restraints.

10. A viable reduction of military expenditures presupposes a substantial flow of information - first, as a reference for negotiations, and second, in order to verify the fulfilment of reductions. However, it should be noticed that the prerequisites for increased exchange of information have improved with more efficient methods of collecting, processing and evaluating information. Creating mutual confidence among States, and thereby stimulating détente, depends to a great extent on improving the flow of military information. Where information is lacking, there is no clear answer to the question of how much military strength is enough. Uncertainty in military planning may lead to a preference for too much rather than too little.

11. Given the nature of the task of the Group of Experts, its approach to the weighty issues set before it has been technical and analytic. The Group is conscious of the real-world problems that must inevitably be encountered in putting any such analysis to practical effect. Implementation may have to proceed pragmatically with methods and procedures developed gradually and improved step by step as information exchange and experience increases.

II. DEFINITION AND ACCOUNTING OF MILITARY EXPENDITURES

A. Introduction

12. The ability to compare military expenditures may serve a number of different purposes: (a) to measure the domestic economic impact of changes in levels of national military outlays; (b) to trace the effects of changes in military expenditures, particularly international arms sales, on international trade flows and national payments balances; (c) to measure differences in the "burden of defence" on the national economy; or (d) to devise constraints on military expenditures in order to achieve a measure of arms control.

13. It is important to distinguish among these various purposes because delimitation of the military sector and the scope and content of military expenditures will vary significantly according to the objective sought. If one is concerned about the international arms trade, the important elements of military expenditures to be examined are those most closely related to international transfer of military goods and services; accordingly, domestic transactions would assume lesser importance. On the other hand, if the goal is arms control and eventual disarmament, attention will focus on current and future military capabilities. For reasons indicated in section I, progress towards the achievement of expenditure limitations requires that the arms control purpose be central to the definition of military expenditure. In particular, the acceptability of such limitations will depend upon each State's perception that its military security will not be impaired by entering into the constraints envisaged.

14. The purpose of this study is to measure military expenditures so as to obtain a reasonably clear reflection of military capability. However, it is recognized that military expenditure is not all-encompassing. Not everything that affects military capability can be expressed in monetary terms. There are imponderables of the society and of military organization which are difficult or impossible to quantify. It will always be necessary to take additional, albeit qualitative, account of the relationships existing between the military and the society in different countries. These factors, too, represent an important element in the evaluation of military capabilities.

B. Definition and scope of the military sector

15. The extent of the military sector may be understood in broader or narrower terms, depending on the political-military conditions and the time interval considered. In wartime the military sector encompasses functionally the whole of society that must be mobilized for success in combat or, indeed, for national survival. In peacetime, the military sector is of course functionally and legally more limited, with a scope possibly related to the degree of international tension. As for the time dimension, it is evident that, in the very short run, only mobilized forces with existing equipment and material stocks can be relied on for military capability. In the very long run, most of total national output and some portion of the national capital stock not initially earmarked for military use could be reallocated to the military sector. It would be extremely difficult to quantify the costs involved in this concept of the military sector. For example, activities will frequently have economic and social as well as military benefits, and there is probably no way of apportioning the costs of a particular measure and the various considerations that motivated it. Evidently, our definition must be based on some intermediate time-frame and a less than total mobilization of the social and political structure.

16. Definitions of military expenditures sometimes include the current costs of past military activities, such as pensions to retired servicemen and families of deceased military personnel, or even payments on the national debt, accumulated largely in the prosecution of past conflicts. As was indicated earlier, the definitions of military sector and military expenditures developed here are geared to arms control through military expenditure limitation. With this objective, our concern is restricted to current and future force potential.

Hence, the definitions must exclude activities related only to past military involvement.

17. As the 1974 report suggests, the military activities of a State may be viewed as intended ultimately for the protection of "national security", of which "military security" is the element directly related to the national military activities. That aspect of national security which seems to correspond most directly to national military activities and the capability to affect events through military policy was called "force potential" in the 1974 report. We may therefore follow the 1974 report in defining the military sector as "that group of activities whose object is the research, development, provision, assembly, maintenance and deployment of current and future force potential intended for application mainly against external forces".

18. The activities of the military sector may also be viewed in terms of:

(a) Employment of military and civilian personnel; including reserves;

(b) Procurement of equipment;

(c) Operations and maintenance;

(d) Construction of military facilities;

(e) Research and development.

In each category listed above, reference is not just to conventional arms but also to nuclear weapons; military applications of space technology are also included.

19. The delimitation of the military sector is complicated by the existence of more or less close substitutes for some of the activities mentioned above. Important substitutes which seem worth examining are:

Paramilitary forces

20. The concept of paramilitary forces is difficult to define. Several different types are identified under this general rubric in the annual entitled The Military Balance issued by the International Institute for Strategic Studies. It seems reasonable to include in the military sector those groups which, having received organized military training, could, if equipped with appropriate weapons, be used as substitutes for regular military forces.

Civil defence

21. It is apparent that passive or civil defence against air attack may be a substitute for active air defence of urban areas. Therefore, in principle civil defence should be included in the military sector, although the application of the principle requires further study.

"Strategic" stockpiling other than armaments

22. The difficulty of "determining the defence-motivated portion of national

inventories" makes it impractical to attempt to include this activity in the military sector.

"Mothballed" or reserve arms production facilities

23. Such facilities represent, in effect, a stockpiling of future production capacity. Their acquisition and maintenance should therefore be included in the military sector as procurement of equipment and be viewed as an element of the core itself, because such reserve facilities constitute future force potential.

Military assistance

24. Military assistance to allies or non-allies should also be included in the military sector. The implicit and perhaps justifiable assumption is that military aid to some extent always strengthens the military position of the donor country.

C. Definition and scope of military expenditures

25. Such activities as training military units, equipping them with weaponry and facilities, and deploying the units for various missions depend on flows of goods and services in the form of personnel, materials, equipment, etc., which are obtained from outside the military sector. Military expenditures are measured as the value of flows of final goods and services into the military sector, valued at factor cost. Given the obvious convenience of adhering to the time span commonly used in national and international accounting, the time unit of definition to be used here is a full year. Part of such flows of goods and services may sometimes be financed by the private sector. The scope and content of military expenditure may be clarified in terms of costs of the activities identified in subsection B.

Compensation of military and civilian personnel, including reserves

26. In accordance with previous discussion of sector limits, pensions and allowances to retired personnel, and to families of deceased personnel, are excluded.

Procurement of equipment

27. Procurement is defined to cover all equipment, not just major classes, and as in the sectoral definition, includes major modifications of equipment on hand. For practical reasons, acquisition of all ammunition and ordnance is classified as procurement. In many countries various forms of government assistance may be extended to military industry. Examples are investment in tools for production of specific weapon systems or grants and loans for current operations or investment purposes. Such assistance is treated here as a subsidy which must be added to product price.

Operations and maintenance

28. Outlays on operations and maintenance include the following:

(a) Purchases of food, clothing, petroleum products, training materials, medical materials, office supplies and other materials for current use, including stockpiling and additions to inventories.

(b) Travelling expenses, postal charges, printing expenses and payment for other current services;

(c) Contract services for repair and maintenance of equipment and facilities;

(d) Purchases of parts, materials and tools for repair and maintenance of equipment and facilities;

(e) Real estate rents.

Construction of military facilities

29. Construction embraces acquisition of land and facilities as well as construction per se.

Research and development

30. Research and development should be subdivided into (a) basic and applied research, outlays on which present a most difficult verification problem; and (b) development, testing and evaluation, for which verification seems more manageable.

31. A difficult problem of military expenditure classification is presented by civilian activities carried out by the armed forces or the Ministry of Defence. Military forces sometimes perform such exclusively civilian activities as construction, farming assistance, medical services, education, hydrographic services or the operation of such institutions as naval observatories. Such activities should be excluded from military expenditures. However, the excluded outlays must be strictly limited to those with a purely civilian effect, such as the cost of construction materials for certain clearly civilian projects.

D. Structuring and classification of military expenditures: a proposed international reporting system

32. We now propose a framework for standardized international accounting and reporting of military expenditures. Agreement on a common accounting table and a common set of accounting principles would facilitate international comparison of military expenditures. The purpose here is to propose an aggregated accounting table that could be used as soon as practically possible by States in reporting their military expenditures.

33. The use of a standard accounting format for military expenditures will probably first fulfil its function as a confidence-building tool. The improved

information available through published budgets reduces the fear of [illegible] estimating military forces of other States and the tendency to over [illegible]e.

34. The minimum possible presentation of military expenditures [illegible] to give the total amount, using specified accounting and pricing standards. Negotiations on limitations or reductions of military expenditures, defined so crudely, are likely to be in vain. More information is necessary on such major components as "ground combat forces", "air defence" and "strategic forces". Specifying the military forces on this level of disaggregation makes possible a rough assessment of what military balance would result from a proposed mutual change.

35. Having broadly defined the boundaries of the military sector and the scope of military expenditures, we may now proceed to present a detailed structuring of military expenditures. This will be done both in terms of resource cost elements and in terms of military missions or programmes. A scheme of the general accounting structure to be used for reporting by participant States is set out in the accompanying table A.

TABLE A

Recommended format for international reporting of military expenditures

Resource costs \ Force groups	Strategic forces	General purpose forces (2) (3) (4) (5)	Central support, administration and command	Para-military forces	Civil defence	Military assistance
	(1)		(6) (7)	(8)	(9)	(10) (11)
I. Operating costs						
1. Personnel						
(a) Civilian						
(b) Conscripts						
(c) Other military						
2. Operations and maintenance						
(a) Materials for current use (purchases of food, clothing, petroleum products, training materials, medical materials, office supplies and the like)						
(b) Maintenance and repair						
(i) Contract services for repair and maintenance of equipment and facilities						
(ii) Purchases of parts, materials and tools for repair and maintenance of equipment and facilities						
(c) Travel expenses, postal charges, printing expenses and payment for other current services						
(d) Real estate rents						
II. Procurement and construction						
1. Procurement*						
(a) Aircraft and engines						
(b) Missiles, including conventional warheads						
(c) Nuclear warheads and bombs						
(d) Ships and boats						

Subdivision of general purpose forces

Cols. (2) Land forces
(3) Naval forces
(4) Air forces
(5) Other combat forces

Subdivision of central support, administration and command

(6) Central support (supply, maintenance construction, training, medical, etc.)
(7) Central administration and command, including intelligence and communications

Subdivision of military assistance

Cols. (10) Contributions to allied forces and infrastructure
(11) Military assistance to allies and non-allies

TABLE A (continued)

Resource costs \ Force groups	Strategic forces (1)	General purpose forces (2) (3) (4) (5)	Central support, administration and command (6) (7)	Para-military forces (8)	Civil defence (9)	Military assistance (10) (11)
II. (continued)						
(e) Tanks, armoured personnel carriers and other armoured equipment						
(f) Artillery						
(g) Other ground force weapons						
(h) Ordnance and ammunition**						
(i) Electronics and communications						
(j) Vechiles						
(k) Other						
2. Construction						
(a) Airbases, airfields						
(b) Missile sites						
(c) Naval bases and facilities						
(d) Electronics, communications and related structures and facilities						
(e) Personnel facilities						
(f) Medical facilities						
(g) Warehouses, depots, repair and maintenance facilities						
(h) Command and administration facilities						
(i) Fortifications						
(j) Shelters						
(k) Other						
III. Research and development						
1. Basic and applied research						
2. Development, testing and evaluation						

* Subdivide by
Domestically produced vs. imported.
Allocation to forces vs. stockpiled.

** Excluding elements in (b) and (c) above.

36. The structure of table A bears similarities to military expenditure accounting used by some countries but differs from any particular national system, since it is developed specifically for the purposes of the study. Also, military expenditures are to be recorded independent of the type of financing, channel of expenditure and type of budget accounting used in any particular national system.

37. The table, while comprehensive in its coverage of expenditures as defined in this report, cannot take into account the value of the current services of military capital, nor does it allow for the recording of stocks of capital and their net and gross changes. Since military balances in the short run are dominated by inherited stocks, it would be desirable in the future to supplement expenditure values with data in physical terms for a number of resource categories.

38. Standardized reporting in the form recommended will require considerable effort. Since it is impossible to know in advance what kind of data States are able and willing to report, more information is requested in table A than can reasonably be expected from all States at the outset. A pragmatic approach and a step-by-step implementation will help overcome the difficulties encountered.

39. In conclusion, we would like to underline our belief in the utility of expenditure limitations as an approach to effective arms control. Reporting military expenditures on an international basis under the aegis of the United Nations is the keystone to that approach, and the Group of Experts believes that this study suggests a valuable instrument for that purpose.

III. VALUATION OF RESOURCES IN THE MILITARY SECTOR

A. Introduction

40. The accounting of military expenditures must determine not only what and how to count - for example, whether civil defence should be included or excluded; whether ammunition purchases should be recorded under procurement or operations and maintenance - but also how to value. What kinds of prices shall be used to weigh physical quantities of goods and services so that the resulting aggregates correspond to the objectives of the measurement?

B. Military expenditure and military utility

41. Given the fundamental arms control purpose of military expenditure limitations and reductions stipulated in this report, it would be desirable to establish valuation criteria that would generate expenditure measures corresponding to measures of military utility. In that case, changes in measured military expenditures could be expected to parallel the changes in real military capability which are to be constrained under the expenditure limitation. An attempt to establish the basis for such a measure of military expenditures uses a conceptual model which postulates that each State's political-military authorities maximize national military security derived from the combination of military goods and services, subject to a budget constraint. In this model, military expenditures may be interpreted in terms of the military utilities

derived directly from the consumption of military goods and services, or indirectly through their combination in output-defined programme packages. The assumptions of this concept are, however, stringent, with no discernible application to the real world, and it appears necessary to reject the military utility model as a basis for a valuation criterion.

C. Military expenditure and production potential

42. The alternative approach to the valuation of military activities suggested in the 1974 report is that of opportunity costing. Resources used in the military sector would be priced at the value of the civilian opportunities foregone because of allocation to military use. Opportunity costing of military activities therefore is a measurement of the civilian production potential that is embodied in the resources in military use, as contrasted with the military utilities that are supposed to be measured by military expenditure. For that reason, opportunity cost valuation yields expenditure values that are second-best measure for arms control purposes,3/ and for reasons indicated in subsection B above, we have no choice but to use a second-best solution for the valuation of military expenditure. The discussion below suggests a variant of opportunity costing as a basic valuation criterion for military expenditure. Such expenditure would then be interpreted in terms of potential to produce military goods and services, in an analogue to the production potential interpretation of national income flows and in distinction from the counterpart welfare-utility interpretations.

43. The 1974 report states the main principles of opportunity costing. It also notes that opportunity costing requires a correspondence of relative prices and relative real costs, that the correspondence is "far from perfect" in the real world, and that the nature and degree of the shortfall will vary because of differences in international price systems. In pure form, factor cost measurements presuppose efficient production, that an economy fully exploits and fully employs the technical possibilities and resources available to it. But distortions of relative prices are found in all real economies, resulting largely from government action on behalf of one or another public policy interest. However, there also are salient international differences in relative prices that reflect the significant differences between different price systems.

44. If we are to succeed in defining a valuation framework of such a nature that military expenditure will be even crudely indicative of an economy's potential to produce military goods and services, it will be necessary to take these and other pricing problems, in both centrally planned economies and market economies, into account. One theoretical apparatus that succeeds in doing so is the Adjusted Factor Cost standard of pricing devised by Professor Abram Bergson, who eases the requirements of the traditional factor cost standard by recognizing that any economy may be operating short of its real production frontier, on a "feasibility locus".

45. To summarize briefly the cost implications of these standards, it may be noted that commodity prices are viewed as composed of charges for factors of production. Wages are the same for any given occupation, with inter-

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3/ By the same token, however, such values are directly relevant for a measurement of the burden of defence.

occupational differences corresponding to the average difference for the economy as a whole in the disutility of employment and marginal productivity. A net charge for capital is accounted for either as a cost (interest) or as residual income (profits) but at a uniform rate for all production based on the average productivity of capital generally. In addition, cost includes depreciation. Land rent allows for differential return to superior land. Where actual costs diverge from the standards indicated, adjustment of expenditures would be required.

46. A modified factor cost standard of this type is a viable solution to the problem of developing a consistent and feasible set of rules for international valuation of military expenditure in domestic currencies. Moreover, it is of general applicability, since the presumption of less than fully efficient operation applies to all economies and encompasses all the major price distortions responsible for shortfalls from the theoretical norm.

47. It will be understood that such a theoretical framework requires judicious application and will necessarily have to bend to the realities of data availability. It cannot be expected that real world measurements can be precisely tailored to fit neatly defined theoretical categories. The criteria suggested here, of course, represent only one possible approach to the valuation problem, although we believe the approach is useful.

IV. PRICE AND VOLUME MEASURES OF MILITARY EXPENDITURES

A. Introduction

48. An increase in military expenditure by a State which has concluded an agreement to limit or reduce military spending is not in itself evidence of a broken agreement. It is quite possible that an increase in expenditure is necessary to purchase the same basket of military goods and services because of an autonomous rise in their prices. Therefore, it is essential to distinguish between nominal and real changes in military expenditures. The usual procedure is to revalue physical quantities at the prices of a single year, and so eliminate the distorting effects of pure price changes. Unfortunately, there is no single source and no systematic collection and processing of information concerning changes in military expenditures at constant prices.

B. Conceptual problems in intertemporal and international comparisons

49. In view of close correspondence between the theory of intertemporal and international price and volume comparisons, it seems useful to set forth at this point a number of the basic common ideas. There are complex conceptual problems involved in constructing measures of the change in volume of production or real expenditures over a period of time and between countries. This is particularly true in areas where it is difficult to develop a concept of output or quantity to which a constant price can be attached. It has already been pointed out that the concept of output of the military sector is somewhat elusive and in sections II and III it has been acknowledged that the concept of military security or even force potential cannot be easily specified and

measured. In view of these difficulties, the alternative chosen in section III was to measure changes in the flows of final military goods and services into the military sector. These flows are valued at factor cost defined in average cost terms. Therefore, the task of deflating for price change within one country or for price differences between countries at a point in time is to construct intertemporal or international price indexes in factor cost terms.

50. We envisage that those responsible for the construction of military price deflators will require information and data from different countries, at different levels of aggregation, and according to different definitions. The usual problems associated with the index number construction may appear in a more extreme form for the military sector. For comparisons over a period of time, military outputs may be weighted in terms of base year or given year prices, corresponding to the familiar Laspeyres and Paasche index number formulae. There are, therefore, two possible indexes for price change of military output. The counterpart in international comparisons reflects the use of the price weights of one country or another. This is the so-called index number problem, made more severe by rapidly changing military structures. For this reason, the Group of Experts recommends a deflation procedure using both types of index referred to above.

C. Technical problems in constructing military price indexes

51. For such cost categories as personnel, materials and standard equipment, the construction of price deflators is fairly routine. More difficult problems arise in the case of military hardware, especially advanced and technically sophisticated weapons systems, where quality change is rapid and difficult to measure, and the distinction between an improved product and a new product is often hard to make. With respect to quality change, experience gained in adjusting civilian price indexes will be helpful for standard items with counterparts in the civilian sector; experimental work could be necessary for more complex items of military equipment.

52. In some cases the data needed to construct military price indexes will not be available; then surrogate indexes drawn from the civilian economy could possibly be used. Their appropriateness in each case will need to be carefully considered.

D. Specific proposals for the construction of price deflators for military expenditures

53. The task of constructing price indexes that closely mirror the actual changes in prices of military goods and services is both technical and political. Technically, the problem is to establish procedures that will yield accurate measures of price change. Politically, it is important to guard against self-serving statistics in the price deflating system. Hence, it would be of doubtful value to use indexes constructed and measured by military agencies without the opportunity of cross-checking against data developed from other sources. Deflation of military expenditure by programme categories does not seem possible because of the large number of price changes that may take place within programmes, comprising very varied elements or components. Therefore a necessary starting point for the deflation procedure is the allocation of military expenditure into resource cost categories, such as those shown in the accounting matrix of table A, each of which could be deflated by an appropriate price index.

Personnel costs

54. The further breakdown of personnel costs should accord with the levels of skill, educational attainment, etc. It may be desirable to distinguish between military and civilian personnel costs and deflate them separately. The difficulty of measuring the rate of growth of productivity of personnel in military activities, as in services generally, makes it useful to adapt price indexes of comparable grades and categories of labour from the civilian economy.

Procurement of equipment

55. To the extent that change in performance or specification of particular products can be measured at all, it is preferable to determine the level of price change at the point at which equipment enters the military sector. To acquire the necessary data, prices must be found for projects in different years which in various senses are equivalent. An assessment based on producers' or purchasers' prices would take into account changes in productivity and adjustments to changed factor prices. The major weakness of this method is the difficulty of making appropriate adjustments for changes in quality.

56. The object of deflation is to achieve a measure of real change in prices of military goods and services so that military expenditure will, in fact, reflect real changes in volume over a period of time. Thus the type of deflator to be used and the extent to which surrogates may be applicable depend on an estimate of the distortion that would result, taking account of what is feasible and practicable and the information available.

Construction

57. Construction (buildings, fortifications, airfields, etc.) is a category of goods and services where price indexes are rarely based on prices of the finished product itself. In many countries there is a variety of cost indexes for construction, but the indexes measure only the price changes for specified units of production resources, e.g. labour, concrete, bricks and so on, without consideration of effects on the price of the finished product from changes in productivity. The difficulties of developing end-product price indexes for construction make it necessary, at least in the short run, to rely on the closest substitute for a comprehensive construction price index: the construction cost indexes prepared primarily for the civil economy which are now available in most States.

Imports

58. Import items must be identified and valued at the same level of aggregation as in the procurement of military hardware. It seems likely that most States importing military equipment will have records of financial flows and price changes.

Research and Development

59. Here the breakdown can be by categories of personnel, materials and equipment which can be treated in the ways designated above for these categories.

Miscellaneous

60. With respect to goods consisting largely of standard items and commodities which bear strong physical resemblance to civilian counterparts, it would seem appropriate to use wholesale price indexes, assuming that they are appropriately constructed.

V. INTERNATIONAL VALUE COMPARISONS FOR MILITARY EXPENDITURES

A. Introduction

61. Any proposal for reduction or limitation of military expenditures may require a generally acceptable means of comparison in absolute value terms. Very little empirical work has been done in the field of international comparisons of military spending. But since the very beginnings of modern economics, considerable interest has been shown in simple comparisons of real income and expenditure, productivity and relative prices between countries.

B. International comparisons using exchange rates

62. An increasing number of leading economists consider that international comparisons which convert national products or some component of national products, estimated in terms of the national currency, into a common currency unit by means of prevailing or adjusted exchange rates are of doubtful value. The existence of different rates for different trade transactions in many countries makes it very difficult to determine the official exchange rate; and although it may be possible to derive a weighted average exchange rate, this requires detailed information on foreign transactions which is often hard to obtain. But even if average official rates of exchange could be computed, their use for the conversion of values to a common currency is open to question. To produce the right results the relationship of internal prices in two or more countries, i.e. the relative purchasing power of currencies must be the same as the exchange rates used to make value comparisons. This equivalence is extremely unlikely. With respect to internationally traded goods it would require that exchange rates reflect the long-run equilibrium rate of exchange, and this would only be possible in the absence of restraints to trade such as tariffs, export subsidies, quotas and licences, and exchange controls.

63. These objections to the use of exchange rates in international comparisons of national products apply with even greater force to military products. There simply are no official exchange rates for military products.

C. Purchasing power parties for the military sector

64. The reliability of estimates of purchasing power parities for final military goods and services will depend upon the availability and quality of the data provided by individual States. Serious consideration of military sectors, and the derivation of reliable internal purchasing power parities for military output, will require detailed price and quantity information. Some conceptual problems involved in international comparisons have already been discussed in section IV above. For the purpose of reductions and limitations of military expenditures, it has been suggested in previous sections that flows of final military goods and services used should be measured. Expenditures on resources on an adjusted factor cost basis would be deflated, where possible, by both a Laspeyres index and a Paasche index. These are the price indexes necessary for the compilation of purchasing power parities.

VI. SUGGESTIONS FOR IMPLEMENTATION

A. Introduction

65. The Group of Experts believes that, while the recommendations in sections II to V concerning the complex problems posed in our mandate are not necessarily exhaustive, they are viable and constitute an analytical step forward towards the goal of expenditure limitations and reductions. There are several technical issues which have been left unresolved, largely because the possible choices required a level of technical detail and specialization which could be supplied only by professionals in the narrow subfields involved. For this reason, there is clearly a need to translate the concepts and procedures developed in this study into practical ways and means that can be utilized on a regular basis by the United Nations and its Member States.

66. The Group has previously expressed the view that the international reporting instrument developed in section II (table A) must be operationalized, tested and refined. These are three distinct phases of what might be called "operational development", which constitutes a prerequisite for more general application of the accounting matrix as a regular instrument for reporting the military expenditure of the States Members of the United Nations.

B. Operational development of the reporting instrument

67. The three phases of operational development may be briefly described as follows: By operationalization is meant the precise definition and specification of expenditure categories and their content in such detail as to constitute concrete guidance to States that will be supplying the required data. In the next phase, testing, the instrument and its accompanying instructions are transmitted to the participant States for completion with the required data. In this phase, the adequacy of the operationalization is examined and assessed. The correction and improvement of the matrix, as well as the accompanying instructions, based on the experience obtained in the testing phase, may be called refinement.

68. In the implementation of operational development, the General Assembly may wish to keep the process under its general supervision. However, the Group of Experts recommends that the technical responsibility for the concrete tasks

of operationalizing, testing and refining should be delegated to an ad hoc panel of experienced practitioners in the field of military budgeting, under the aegis of the United Nations system.

69. In testing the validity of the reporting system proposed in the present report, the General Assembly may opt for a universalistic approach, on the grounds that all Member States should be given an opportunity to participate on a voluntary basis from the outset. In the interest of economy and time, however, the General Assembly may wish to consider, if feasible, that at the initial stage a selected group of States would suffice, providing it is representative.

C. Suggestions for further action

70. If the operational development of the standardized reporting instrument is successfully completed, the instrument should be ready for adoption and institutionalization by the United Nations for regular reporting. At this further stage the international community should be ready for discussion of the other major technical issues of expenditure limitation and especially of the problems of verification. At the appropriate time, further consideration should be given to utilizing part of the resources released from the reduction of military expenditures for social and economic development, particularly that of the developing countries.

ECONOMIC AND SOCIAL CONSEQUENCES OF THE ARMS RACE AND OF MILITARY EXPENDITURES (A/8469/Rev.1)

INTRODUCTION

1. The discussions and negotiations which have been pursued in the United Nations and elsewhere in order to achieve the basic goal of the maintenance of peace and the elimination of war have led to some initial steps in the field of arms limitation and disarmament. Nonetheless they have not succeeded in halting, let alone reversing, an arms race that has grown ever more perilous over the years, and ever more wasteful of human and other resources. The trend to produce and accumulate ever more sophisticated and ever greater numbers of costly and deadly weapons continues uninterruptedly. More and more States, including a growing number of smaller or developing countries have found themselves impelled along this path.

2. Nuclear weapons constitute the most fearful category of armaments to which military expenditures are devoted, and these pose the greatest threat which mankind now faces.

3. Chemical and bacteriological (biological) weapons have consumed only an insignificant part of total expenditures on arms, but the ominous shadow they cast over the world is totally disproportionate to thier cost. The United Nations considers chemical and bacteriological (biological) weapons as belonging to the category of weapons of mass destruction, and has insistently called for their elimination.

4. By far the largest part of the total of military expenditures which is devoted to equipment is, however, consumed in the development, production and purchase of conventional weapons such as aircraft, tanks and guns, the weapons which have been used in the wars which have marred this last decade. This generalization applies as much to the nuclear Powers as to the non-nuclear States.

I. QUALITATIVE ASPECTS OF THE ARMS RACE

5. The decade of the 1960s was marked by a greater spread and by a more extensive technological elaboration of armaments than any which preceded it. During the period, there were no developments comparable to the emergence of radio or radar, jet engines or rockets, nuclear weapons or electronic computers. Yet the decade will be remembered because supersonic flight became commonplace, because of the diversification of nuclear weapons in the armouries of a few major Powers, and because their multiplication meant the accumulation of destructive power, only a fraction of which would be enough to eliminate life on earth; because the development of ballistic missiles, and the sophistication of their guidance and control systems, made any point on earth open to precise attack by nuclear warheads; and because space technology added a new dimension to the field of military communications and surveillance.

6. The make-up of military budgets varies from country to country, but it can safely be said that in the major arms-producing countries on average about half goes to personnel costs and the rest to a combination of research and development, purchase of equipment, construction and operations. The estimated total for world military expenditures over the period 1961 to 1970 is $1,870 billion (at 1970 prices) (see section II, table 1, below), of which it can be reckoned that about $600 billion was devoted to the purchase of equipment. By far the larger proportion of this sum was spent on conventional arms. The outlays on nuclear arms which the nuclear Powers have made over the years, and which are also included in this sum, have resulted in the stock-piling of weapons with a potential destructive power infinitely greater than that of all other armaments put together. The weapon-systems associated with nuclear armaments are not only extremely costly to produce, but their vast "over-hitting" power makes them, in no conceivable sense, a substitute for conventional arms. The same general conclusion applies to chemical and bacteriological (biological) weapons.

7. Of the total of $1,870 billion which went to military expenditures over the period 1961 to 1970, an estimated 10 per cent - somewhat less than $200 billion - was devoted to military research and development. This work was highly concentrated in the six countries 1/ which now account for more than four-fifths of total military expenditure. Although only a minor part of the total, it is this outlay for research and development that determines the main feature of the modern arms race - the qualitative changes in armaments. The people who design improvements in weapons are themselves the ones who as a rule envisage the further steps they feel should be taken. They do not wait for a potential enemy to react before they react against their own creations.

8. These features of the arms race show up very clearly in the field of long-range nuclear weapons. First there was a rapid change in the means of delivery, starting with the switch from manned bombers to liquid-fuelled ballistic missiles, beginning with intermediate and moving on to rockets of inter-continental range. Solid-fuelled missiles soon followed, deployed in concrete silos, in order to protect them from attack. In parallel, submarine-launched ballistic missiles were developed and deployed.

9. With the introduction of ever more sophisticated and less vulnerable means for the long-range delivery of nuclear warheads, nations turned their efforts in military research and development to the problem of detecting and intercepting ballistic missiles. Simultaneously, efforts were directed to the devising of missiles with multiple warheads (MIRVs) capable of being aimed at a number of targets from a single launch, and so, theoretically, of overwhelming anti-ballistic missile (ABM) defences.

10. The research and development effort devoted to nuclear armaments during the 1960s has been enormous. Military satellite communications, supplementing more conventional methods of communication, have also been deployed, as have also space surveillance systems.

1/ The United States, the Soviet Union, the People's Republic of China, France, the United Kingdom and the Federal Republic of Germany.

11. Vast technological developments have occurred in weapons and weapon-systems designed for air, land and sea warfare. The development and deployment of supersonic aircraft has greatly increased the cost and complexity of what are still regarded as conventional fighter aircraft. A modern fighter-bomber costs ten times one aircraft of 10 years ago which it replaced.

12. The familiar chain of new weapon, counter-weapon and counter-counter-weapon has also characterized the sphere of land warfare. The dependence of armies on armoured vehicles has intensified, the response to this change being the continued elaboration of sophisticated anti-tank weapons. Helicopters have been brought into greater use, in the effort to increase the mobility of land forces.

13. In the naval sphere nuclear and gas turbine propulsion have added new dimensions to the design of ships' machinery. The increasing vulnerability of surface vessels to air attack has been countered by the development and installation of anti-aircraft missiles. Counter-measures have followed, such as the stand-off bomb, which can be launched from beyond the range of the ship-borne missile.

14. Some figures are available which reflect these various qualitative changes. At the outset of the decade, hardly any intercontinental ballistic missiles (ICBMs) had yet been deployed. By the end of the decade the estimated numbers were 2,150. In 1960 the deployment of submarine-launched ballistic missiles was negligible. By the end of the decade, some 55 nuclear-missile submarines were operational, comprising about 800 missiles, capable of delivering about 1,800 warheads.

15. From 1960 to 1968 the world stock of fighting vessels is estimated to have increased from 4,550 to 4,900. At 1968 prices, the value of the stock in 1960 was about $34 billion, as compared with $60 billion in 1968, a 75 per cent rise.

16. A much more striking change occurred over the period in the world stock of supersonic fighters. At the opening of the decade their estimated number was 6,000. By the end it had doubled.

17. This brief sketch of the qualitative changes in armaments that have taken place over the decade shows that while the cost of the arms race in terms of the resources which it consumes is highly alarming, the mounting sophistication and destructiveness of the weapons which result from it are even more so.

II. THE ARMS RACE IN TERMS OF RESOURCES

18. As already noted, military expenditures for the world as a whole added up to an estimated total of $1,870 billion (at 1970 values) over the period 1961 to 1970 inclusive. During the 10 years from the beginning of the decade, annual expenditures have increased by more than $50 billion to reach

their present level of about $200 billion.[1/] Military expenditures are in fact now running at two and a half times what all Governments are spending on health, one and a half times what they spend on education, and 30 times more than the total of all official economic aid granted by developed to developing countries.[2/]

Table 1. World Military Expenditures and GNP
1960-1970[a]
(Amounts in billions of constant 1970 dollars)

Year	World military expenditures	World GNP	Military expenditures as percentage of GNP
1960	150.5	2,023.5	7.4
1961	156.1	2,116.6	7.4
1962	167.6	2,213.7	7.6
1963	174.2	2,313.7	7.5
1964	174.0	2,462.4	7.1
1965	174.9	2,589.8	6.8
1966	190.5	2,732.0	7.0
1967	206.5	2,842.8	7.3
1968	209.9	2,963.9	7.1
1969	209.6	3,096.0	6.8
1970	202.6	3,204.1	6.3

a Estimates prepared by the United States Arms Control and Disarmament Agency. World totals are based on national data adjusted to uniform definitions of military expenditures and GNP, in so far as available information permits.

1/ The statistical study of world military expenditures is still in its infancy and comparatively little research into the question has been encouraged. This is mainly because of the issue of secrecy. The margin of error in the figure of $200 billion for annual world military expenditures at the end of 1960s is not known, and any figure for total expenditures between $170 and $230 billion would be plausible. There is a much smaller margin of error in the calculation of trends.

2/ It should be noted, however, that in many countries a large proportion of spending on health and education is private.

19. In a period in which no major nations have been at all-out war with each other, it is a new departure for the world to devote so large a proportion of its resources to military uses. Compared with previous periods in which the more highly industrialized countries were not at war with each other, there have been two major changes. First, the world's standing armies are much larger than they used to be. Second and more important, the qualitative changes in weaponry described in the previous chapter mean that the weapons with which these armies are equipped have grown immensely in lethal power, in cost and in complexity. The relative share of world output devoted to military uses in the years since 1949 has been at least double what it was in 1913, when there had already been three years of competitive rearming between the great Powers. It is a highly disturbing fact that the world has increased the volume of resources which it is devoting to military uses at least twenty-fold during the course of this century.

20. Over the past 20 years, the rise, though rapid, has been irregular. It has tended to go up sharply in periods of crisis or war, and then level off for a number of years, but without returning to the pre-crisis figure.

21. During the period 1960-1970, the movement of military expenditures, as well as of their share in GNP, was irregular. Their level increased considerably in real terms, but their share in GNP decreased somewhat by the end of the 1960s. People might suppose that were the calculated percentage of the national product devoted to military expenditure by rival States to remain steady, they would not be engaged in an arms race. Equally, a falling percentage of national product could be taken to imply that an arms race was "going into reverse". Neither of these inferences would necessarily be true. Indeed, a steady percentage of a constantly rising world output would imply an unending arms race, at the same time as a falling percentage could conceal an absolute increase in military expenditures. Economic evidence alone, therefore, cannot demonstrate that the arms race is abating.

22. World military expenditure is highly concentrated in a few large countries. Six countries out of 120 3/ alone accounted for more than four-fifths of the world total for the decade of the sixties. Developing countries play a lesser role in the global arms race. With nearly half of the world's population, they account for only about 6 per cent of world military spending, and their influence on the world trend in expenditure, and on the technological arms race, is consequently minimal. Further, they devote a smaller share of their resources to military purposes than do the major industrialized countries. Although military spending in developing countries is very low in relation to that of the advanced countries, it is significant that in the decade of the sixties the rate of growth of military expenditures was appreciably faster in the developing countries than the world average - in contrast to what has happened in the six nations which are the major military spenders. Against a world rise of about 3 to 4 per cent a year, military spending in the developing countries has been increasing at a rate of some 7 per cent a year. When the

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3/ The 120 countries cover all the countries in the world with any significant military expenditure. The six major countries are: the United States, the Soviet Union, the People's Republic of China, France, the United Kingdom and the Federal Republic of Germany.

needs of economic development are so pressing, it is a distrubing thought that these countries should have found it necessary to increase their military spending so speedily.

23. The rapid rate of increase in military spending in developing countries should, however, be interpreted with caution. The arms race in the third world can be directly related to the wars in which it has been engaged. But as is fully recognized, some conflicts have not been conducted independently of the great Powers, which have provided considerable supplies of weapons and of finance. In other regions a number of new States have been building up their armed forces virtually from nothing.

24. It has been estimated that about 50 million people are engaged directly or indirectly for military purposes throughout the world. The available information does not permit a more precise figure. Fairly accurate figures for the armed forces alone are available, but they are not a good substitute for expenditure estimates - partly because the armed forces have become increasingly capital-intensive. Not only is the ratio of equipment costs to total expenditure rising, but in a number of countries the armed forces have been employing an increasing number of civilians to do work which was previously done by servicemen.

25. It is worth noting, however, that the figure for the personnel in the world's armed forces as a whole reached a total of 23 to 24 million by 1970, and that it had been rising at a rate of about 2 per cent a year during the decade of the sixties. Virtually all of the increase in military manpower occurred in the developing countries, whose share of the over-all total for the world's armed forces is now about 37 per cent, in contrast to a 6 per cent share in military expenditure. Over the past decade the numbers in their armed forces have been rising by 4 per cent a year.

III. THE DYNAMICS OF MILITARY RESEARCH AND DEVELOPMENT

26. The extent to which military expenditures affect other fields of public and private spending becomes clearer when the dynamics of the race, as reflected in the continuing elaboration of armaments, are understood. Obviously the scale of the resources which are provided for the maintenance of armed forces and for the acquisition of armaments is determined by political decision. It does not necessarily follow that the process of action and reaction which characterizes the arms race, certainly the arms race in sophisticated weapons, means that security is increased as more is spent on armaments. Indeed in the field of nuclear weaponry the reverse appears to be the case. Furthermore, every new generation of weapons and weapon systems inevitably demands more and more resources which could be used for different economic and social purposes. By providing resources for basic fields of science which might bear upon the development of sophisticated weapons, the arms race also inevitably affects the direction and tempo of a country's scientific and technological development.

27. It is the most powerful industrial nations which are the pace-setters of the arms race. They too are the ones which have also had a considerable impact on the development of science-based industries in the civil field which are complementary to those which provide military matériel, for example aircraft. The arms race of the major Powers is now a competition to achieve an advantage not just in quantity but even more in quality -- in the speed of aircraft, in the range and accuracy of ballistic missiles, in the manoeuvrability of tanks, in the efficiency of radar systems, and so on. The arms race has in fact become essentially a technological race, the achievements of one side spurring the other to improve on the technological advances which it might have made itself. The arms race becomes based on the "hypothesis of the worst case", that is to say, one of two sides designs its programme of development on the assumption that its rival could, if it so decided, be the stronger.

28. That is one aspect of the force behind the race. There is another. Before a new weapon is completed, the military designer is as a rule already designing a more effective model which -- he hopes -- will not only be more effective in performance, but also less vulnerable to defences which the other side might introduce in response to a new threat. Obsolescence thus also becomes a characteristic of the technological arms race. Over the period of the 1960s, the effect of the increasing sophistication of military equipment was far greater than would be implied merely by a numerical statement of the economic resources involved. The process was inevitably associated with a very focused research and development effort, which depended on the services of a disproportionate number of professional scientific and engineering personnel. Probably at least a quarter of the world total of scientists and engineers who are engaged in research and development are in fact still employed on military work, and military research and development probably absorbs some "25 billion of an estimated world total research and development expenditure of some $60 billion.4/ It is usual to find that in countries with developed military

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4/ Estimate derived from The Research and Development Effort in Western Europe, North America and the Soviet Union (Paris, OECD, 1965) and SIPRI Yearbook of World Armaments and Disarmament, 1969-70, pp. 288 ff.

industries, the proportion of the labour force of the engineering industry which is absorbed in the production of military equipment is far greater than the percentage of GNP which goes to military expenditures, and that the percentage of all qualified scientists and engineers employed on military research and development is even higher.

29. Qualitative changes in armaments also generate quantitative and qualitative changes in manpower within the armed services. The numbers of skilled technicians required for the maintenance of ever more sophisticated equipment have to increase, and higher standards of skill and training on the part of operating personnel also become essential. As complex armaments began to spread to the developing countries during the past decade, those countries have also been diverting more of their scarce technical manpower to military purposes, paying for them to be trained abroad, or employing foreign technicians, all to the detriment of a more fruitful use of national resources.

30. The record of advanced weapons programmes in the sixties provided many illustrations of the abandonment of costly projects before their completion, and after hundreds of millions of dollars had been poured into them. Sometimes the work was stopped because of the impossibility of overcoming a technological or scientific hurdle. Sometimes it came to an end because the conception on which it was based changed owing to a new military appreciation of the "need", or because of development in a potential enemy's armoury. More usually, projects have been abandoned because they have run up against a barrier set by the absolute size of the economy of the country concerned. Since abandoned projects are likely to be replaced by other projects, the process of abandonment increases the economic waste caused by the arms race.

31. Because of their inherent tendency to rise, research and development expenditures always stand to consume more and more of any defence budget. It is not only that new technology always costs more to achieve than the "state of the art" which it succeeds, or that, once it has been developed, a generation of weapons, designed to replace another, inevitably turns out to be much more costly to manufacture. New weapon-systems continuously require more highly qualified personnel, and therefore personnel costs tend to rise faster than in the civil side of the economy.

32. The economic implication of the rising tendency of research and development costs, together with the rise in personnel costs, is that more and more countries are compelled to opt out of some sectors of the technological arms race. As a consequence, richer countries are enabled to continue longer in the technological arms race, as they can export modern weapons and so produce them on a larger scale, with reduced unit costs.

33. The arms race is thus a hindrance to development both because it draws heavily on available material and human resources, and because it adds to the threat to peace. In its essence, it is incompatible with normal economic and social development.

IV. THE NATIONAL CONSEQUENCES OF THE ARMS RACE AND MILITARY EXPENDITURES

34. The resources which are allocated for military purposes are a broad indication of what is denied other avenues of public and private expenditure. If countries had not expended their means for military purposes, they could obviously have put the resources so consumed to many other uses.

35. Poverty and slums exist even in the richest countries. Housing is still an unsatisfied demand. Housing investment, together with slum clearance and urban renewal, represents only about 3 to 3.5 per cent of the world's total national product.5/ But in the world as a whole far fewer resources were devoted to new housing during the sixties than to military expenditures. This is particularly true of the major countries.

36. Health services, like education, constitute a major demand which is less than adequately satisfied, even in the richest countries; and in the poorer countries there is a crying need for more resources. The comparison of world expenditure on health and military expenditure is a difficult one, since health services in some countries are entirely publicly financed, and in others are mainly privately financed. But, as already noted, for the world as a whole, military expenditure is about two and a half times the estimated total of publicly financed health expenditure.6/ A rough calculation suggests that all medical research in the world consumes only about $4 billion. This compares with some $25 billion which it is estimated is now spent on military research and development.

37. Then there is the major problem of protecting the environment, which is only now beginning to be understood. Military operations can bring about major environmental devastation. The vast destruction which is associated with modern war is the extreme case. Nuclear tests are an isolated illustration of the environmental damage that can be caused by armaments. There is also the diversion to military purposes of the resources required for the major task of repairing the environmental ravages of the past, and of preventing the further depredations which could become increasingly urgent as population multiplies.

38. Another important aspect of military expenditures is their effect upon economic growth. To the extent that the arms race inhibits growth, this economic effect reinforces all that has been said about its impact upon consumption.

39. A fast rate of economic expansion is, of course, one of the central economic objectives of most countries. The social factors involved are usually treated under the heading "investment in man" -- investment in order to increase the health, well-being, education and physical and organizational potentialities of a country's citizens. Needless to say, many of these types of social investment are ends in themselves. But they are obviously also very potent factors in the rate of economic growth. Military expenditures undoubtedly absorb resources which are substantial enough to make a considerable difference both in the level of investment for civil purposes and in the volume of resources which can be devoted to improving man's lot through social and other services.

5/ Estimate derived from United Nations national accounts statistics.

6/ United States Arms Control and Disarmament Agency, World Military Expenditures, 1970, p. 10.

40. There is no doubt that a transfer of resources from military to civil uses would provide further possibilities for an increase in the rate of economic growth. It is certain that there would be a once-and-for-all increase in the amount of goods available for civil purposes and that from then on the economy would grow at permanently higher levels.

41. It is entirely reasonable to compare fixed investment with military expenditure, and to see whether a reduction in military expenditure could make a significant difference to the investment level. For the world as a whole, military expenditure -- at 6 to 6.5 per cent of world national product -- is about a third as large as fixed capital formation -- 20 per cent of world national product. Clearly, therefore, given a conscious decision to this effect, the investment level could be given a significant upward shift. There is no lack of investment opportunities in the world. Most countries have waiting lists of investment projects, particularly in the public sector, which they are unable to start through lack of resources.

42. Many developing countries do not have an industrial sector capable of arms production, and so import most of their arms from abroad. A reduction in their arms spending would free foreign exchanges resources which could be used for the import of more investment goods, thus facilitating a higher rate of growth. For these countries, the need for adequate investment is particularly acute. At their present level of investment the gap between their standard of living and that of the industrialized countries is not likely to be satisfactorily narrowed for years to come. One of the basic problems of growth in many defeloping countries is to find the resources for the creation of new productive sectors which are now more or less entirely lacking and for a massive expansion of infrastructure. Yet one of the largest items in current public expenditure in many of these countries is military expenditure. What all this means in terms of the denial of alternative opportunities is revealed clearly in an economic study of 44 developing countries over the period 1951 to 1965.7/ This indicated that the part of their military expenditures which went to procurement diverted domestic and foreign resources equivalent to about 4 per cent of their gross capital formation.

43. "Research and development" has been institutionalized in modern industrial societies, so that innovation is no longer so haphazard a process as it was in the period of the isolated inventor. In consequence, research and development's share in the national product of industrial countries has risen fast. As was said in the previous chapter, the arms race has been associated with a sharply focused research and development effort and has absorbed a high proportion of the total professional manpower and the limited resources which the countries involved have available for all research and development. Concentration of research and development outlays on production exclusively for civil purposes would lead to an improvement in the efficiency with which capital and other resources are utilized and hence would accelerate the rate of growth.

7/ Emile Benoit et al. Effects of Defense on Developing Economies (study prepared by the Massachusetts Institute of Technology for the United States Arms Control and Disarmament Agency, forthcoming).

44. In most countries more is still devoted to military purposes than is spent on education generally, and overwhelmingly more than goes to research and development for the civil sector of the economy. But, as has already been pointed out, at least as important is the fact that the armed forces in industrialized countries absorb a disproportionately large share of the available technically skilled personnel.

45. Private consumption, as well as provision for such social services as education, health, housing and transportation, together with the cost of protecting our physical environment, is clearly in direct competition with military expenditures. Rising standards of living -- in the context of the world in which we now live -- mean more expenditure on all these things. Were military expenditures to fall it would assuredly be expected in some, if not all countries, that more resources would be released for personal spending.

46. Military expenditures also tend to disturb and destabilize the course of the economy in general, particularly when they fluctuate sharply. The rest of the economy has only too often had to be adjusted, to fit in with military exigencies and with the time-cycle of military developments. Apart from general destabilizing effects on the economy, the disturbing effects of the fluctuations which so often characterize military programmes tend to be concentrated in the particular regions and particular industries where military procurement takes place.

47. In terms of balance of payments, it is usually the developing countries which stand to lose most from their military expenditures. If a developing country wishes to acquire sophisticated weapons, and if none of the countries manufacturing them wishes to provide them by way of military aid, the developing country could incur a considerable balance-of-payments cost in acquiring either the weapons or the background technology (or both).

48. Military expenditures have also had the effect of increasing the disequilibrium in countries' balance of payments -- and that is both a national and international consequence of military expenditure. Such disequilibria in world payments undoubtedly have slowed, and at times even threatened to reverse, world progress towards further relaxation of restrictions on trade and payments.

49. Against the long catalogue of harmful effects of the arms race and military expenditure, one benefit which has been claimed is the spur given to technological progress. Obviously, if there is such a benefit, if war is the mother of invention, the cost in human lives and misery has been far too high a price to pay for it.

50. During the Second World War certain scientific and technological advances were accelerated, such as the development of atomic power, of computer, of air transport and radar, and of electronics in general. This has undoubtedly left its mark on all advanced technologically based industry today. But, if countries are parepared to set the right priorities and if the right motivation is generated, they ought to be able to achieve even more rapid technological progress without war or an arms race.

51. Particularly improtant is the fact that military and space technology appears to be becoming more and more specialized, and less and less adaptable to civilian use.8/ Moreover, military secrecy always retards the pace at which civil benefits can be extracted from military developments.

52. More important than this, the specialized features which have been imparted by military demands to the pattern of research and development were clearly no designed to solve the world's present social and economic problems, and far less those which population growth and environmental protection pose for tomorrow. If even a fraction of what has gone into military research and development were provided for a frontal attack on some of the main economic and social problems of the world, one ought to expect much larger benefits in the peaceful uses of science than have come from the spin-off of military research and development.

53. Whereas it is possible to consider the economic consequences of the arms race and of military expenditures in quantitative terms, their social consequences can only be discussed qualitatively. It stands to reason that military expenditures also have profound social consequences, and the shadow of possible disaster which modern armaments cast over the world is clearly the most ominous. Against the background of the Second World War, the fear engendered by the nuclear arms race was one of the factors which stimulated the post-war disillusion of the youth in many countries, whatever the level of their military spending. Every child learned that he lived in a world in which violence had become commonplace, and which was now stocked with sufficient lethal power to wipe out all human life. There can be no question that the continuing arms race and the growth of violence in the world add to the disaffection of millions of people.

54. The arms race also tends to change traditional relationships between the civilian and military sectors of the economy. The military sector means more than the military forces themselves. It includes the firms and industries which serve them, the scientific institutions where their research is done, and the political establishments and ministries that owe their power to the arms race -- a combination which has come to be called the "military-industrial complex". The military-industrial complexes everywhere become concerned to preserve themselves, and consequently to maintain the circumstances which gave birth to them. That is a further social consequence of the arms race.

55. Yet another is the threat to democratic processes which can arise. The spirit of militarism is opposed to the spirit of democracy and peaceful progress in the world.

56. Whatever the varied and numerous considerations which keep the arms race alive, they therefore not only entail heavy economic sacrifices, but also weaken those processes of social evolution which provide our only real hope for the future of the human species.

8/ An OECD report has commented that "the technological requirements of defence and space are diverging from those of civilian industry, which means that the possibility of such direct transfer will tend to diminish". "The effects of military and space research on civilian technology", Government and Technical Innovation (Paris, OECD, 1966), p. 31.

V. THE INTERNATIONAL CONSEQUENCES OF THE ARMS RACE AND MILITARY EXPENDITURES

57. The purposes which military expenditures are meant to serve are by definition international in character. Periods of international tension are usually associated with an acceleration in the arms race; and in turn a speeding-up of the race exacerbates international tension. The massing of armaments and the continued development of new weapon-systems cannot but generate more suspicion and greater tension than exists at the start, and by so doing provoke hostile reactions on the part of those who feel threatened. This applies to all armaments, whether they come into the category called conventional, or that designated "weapons of mass destruction". The competition in nuclear weapons obviously overshadows all other aspects of the arms race, since a nuclear war would put the future of the entire world at risk.

58. Regional arms races in conventional weapons, which are sustained by supplies of arms from arms-producing Powers, are also immensely important in the exacerbation of international tensions. Moreover, the rate of obsolescence in modern armaments is such that considerable quantities of surplus war material become available each year. There is consequently a strong economic motive to search for markets for such material. Quite apart from the severe sacrifices in life and resources which conflicts in the developing areas of the world entail, these at the same time carry the risk that they might spread to neighbouring countries, and inevitably they imply the additional danger that the military forces of some other countries, especially major Powers, could become directly involved.

59. The arms race inevitably exacerbates international tensions and inevitably undermines the purposes and principles of the United Nations Charter. The foregoing considerations underline the necessity for all States to pursue their efforts toward disarmament, in particular nuclear disarmament.

60. International suspicions and fears, however, do far more than poison relations in the political sphere. They also damage the economic and social well-being of the world by impeding exchanges between peoples whether these be of trade and the flow of capital, or of knowledge and technological "know-how". Military considerations have limited trade in so-called strategic commodities and have led to the creation of rival trade groupings involving, inter alia, restrictions on trade in some of the products of advanced technology. The same strategic considerations also inhibit technological and scientific exchanges between countries. This can be regarded as an extension of the strategic embargo on international trade.

61. Stockpiling of raw materials as a consequence of the arms race is also a factor which in the past has distorted world trade. The tendency towards stockpiling seems to be declining, but there is still the possibility that the reduction of stockpiles can create market distortions.

62. Trade between the centrally planned and the developed market economies has clearly been affected by the arms race and by the tensions between the two systems. Even if the latter did not exist, there would still be problems in increasing trade between countries with basically different economic systems. But, in a disarmed world, trade between market and centrally planned economies could hardly fail to rise.

63. The developing countries, in which more than two-thirds of the world's population live, which account for about 15 per cent of the world output and whose share of world exports was about 18 per cent in 1969 (down from about 27 per cent in 1953), would also benefit immediately from a cessation of the arms race. As was pointed out in section IV, the arms they import lead to distortions in their trade.

64. In a world free of tensions, and increasingly disarmed, the level of trade could well be higher simply because world output might have reached a higher level. In the past the general experience has been that, for every 1 per cent added to world output, about 2 per cent is added to the volume of world trade.

65. An increase in world output clearly could also have a powerful impact on the volume of aid provided by the richer to the poorer countries. One major effect of the arms race and military expenditure has been to reduce the priority given to aid in the policies of donor countries. Furthermore, some aid becomes viewed not exclusively or even primarily in terms of a solution of the problems of the third world, but as a means of acquiring influence in a particular region, or of denying influence to some other country.

66. As already noted, total world military expenditures are some 30 times the level of official development assistance, which now added up to some $7 billion. The sum has fallen steadily throughout the 1960s not only in relation to the gross national product of the donor countries, but also to that of the developing countries; in 1970 such assistance was equivalent to only one-third of 1 per cent of the combined GNP of the donor countries. Funds of this kind contribute to the volume of investment in the developing countries. A slowing of the arms race would make more such funds available.

67. The General Assembly has set targets both for the total flow of capital - which it is proposed should reach 1 per cent of the gross national product of the developed countries by 1975 - and for the flow of official development assistance alone, which should reach 0.7 per cent of gross national product.9/ While a number of countries have made progress towards these targets in recent years, the over-all tendency has been for the share of aid in the gross national product of the developed countries to fall rather than rise.

68. It would take only a 5 per cent shift of current expenditures on arms to development to make it possible to approach the official targets for aid. The volume of fixed investment in the developing countries is estimated to have been around $65 billion in 1969. A shift of 10 per cent from world military expenditure to investment would provide enough resources to raise the figure by almost a third.

69. Obviously, if the "disarmament dividend" were to become a reality, there would be many other claimants besides aid for the resources freed in developed countries. None the less, any wise assessment of world problems could not fail to give additional aid a very high priority.

9/ See General Assembly resolution 2626 (XXV), paras. 42 and 43.

70. Given a "disarmament dividend", there are reasons for being optimistic that developed countries would be prepared to budget for some increase in aid. Lower levels of military expenditure would remove an important obstacle to the expansion of aid. In 1953, in General Assembly resolution 724 A (VIII), Member Governments were urged: "when sufficient progress has been made in internationally supervised world-wide disarmament, to devote a portion of the savings achieved through such disarmament to an international fund, within the framework of the United Nations, to assist development and reconstruction in underdeveloped countries". The complementary objectives of the Disarmament Decade and the Second United Nations Development Decade illustrate the same point.

71. The way the resources made available for aid are utilized makes all the difference to the effectiveness of their impact on the growth of the developing countries. Priorities have to be set, problems properly explored, and the best available measures used for their solution.

VI. CONCLUSIONS

72. From time immemorial States have relied on military forces to further their interests and to enhance their security. Today is no exception. But with the acceleration of technological change, the perils have become so acute that it is no exaggeration to say that the arms race has finally provided man with the means of putting and end to his species. Political wisdom has so far averted his final disaster. It cannot, however, insure against military miscalculation or against human or technical error, both of which could lead to the same fearful end.

73. The arms race makes more acute the very international strains to which it relates. Political differences become sharpened by the fear and suspicion which the amassing of armaments generates. International trade is slowed, particularly in the products of advanced technological industry. Military expenditures contribute to acute imbalances in the international payments. Cultural exchanges stagnate. In short, armaments, which are supposed to provide security, provoke the very political differences which nations may assume they will help dissipate.

74. The cost of the arms race is enormous, and because of it, resources have been denied almost every other field of social activity. In total, it consumed nearly $1,900 billion from 1961 to 1970. If annual military expenditures continue to absorb their present percentage of world GNP, they could well reach the level of $300-350 billion (at 1970 prices) by the end of the decade, with a total outlay for the decade of some $750 billion more than was spent from 1961 to 1970.

75. The military expenditures which cast the greatest shadow over the world are those of the major Powers, which between them account for the bulk of all such spending. Arms race between the developing countries are, however, no less dangerous. There is the risk of conflicts spilling over to third countries, or indeed to the major Powers. The military expenditures of these countries deplete the resources which could otherwise be used for development.

76. This report has considered the opportunities lost as a result of the arms race. Economic aid has suffered. Enormous social problems lie ahead for all countries. Public services, health, education, housing, and now the protection of the environment, all need the resources which the arms race consumes.

77. The Second World War began at a climactic moment in the development of modern science. New scientific knowledge was only too ready for exploitation in the prosecution of war. Whatever "spillover" effects there may have been from the resulting military technology, they could have been generated without the competitive challenge of militarism.

78. As was stated in the preamble to General Assembly resolution 2667 (XXV), a halt in the arms race would contribute effectively to the improvement of international relations and the maintenance of world peace and security. Every effort to retard the race would help, for any retardation would make it possible to release resources for peaceful uses, including aid. We share both the conviction and the hope that increased aid to developing countries would be a natural consequence of substantially reduced military expenditures.

79. The enormous cost of the arms race in human and other resources will become even clearer than it is today when the pace of the race is slackened as a result of concerted international political decision.

80. It is our unanimous conclusion that:

(1) A substantial reduction in the military expenditures of all countries, particularly of those whose military expenditures are highest, should be brought about as soon as possible. The sooner concrete measures of disarmament, particularly of nuclear disarmament, are achieved, and the arms race is thereby halted and reversed, the faster will be the progress towards the goal of general and complete disarmament.

(2) Regardless of their size or their stage of development, all countries share the responsibility of taking steps which will help achieve this goal.

(3) A halt in the arms race and a significant reduction in military expenditures would help the social and economic development of all countries and would increase the possibilities of providing additional aid to developing countries.

(4) In order to draw the attention of the Governments and peoples of the world to the direction the arms race is taking, the Secretary-General should keep the facts under periodic review.

ECONOMIC AND SOCIAL CONSEQUENCES OF DISARMAMENT
E/3593/Rev.1

INTRODUCTION

1. This Consultative Group on the economic and social consequences of disarmament has dealt with the subject on the assumption that disarmament, once agreed upon, would be general and complete and also rapid. It has done so in the belief that this was the intention of the General Assembly resolution under which it was appointed,1/ and also because this interpretation gives the clearest form to both the benefits and the difficulties, thereby minimizing the risk that the latter will be under-estimated. The report represents the unanimous findings of the Consultative Group.

I. RESOURCES DEVOTED TO MILITARY PURPOSES

2. The most fundamental way in which disarmament affects economic life is through the liberation of the resources devoted to military use and their re-employment for peaceful purposes. This shift in the composition of the aggregate demand for goods and services is simply a large-scale manifestation of a phenomenon that is constantly taking place in all economies as the demand for certain goods and services shrinks while the demand for other goods and services expands; thus disarmament in its economic aspects should not be considered as a unique phenomenon.

3. To assess the transitional problems that may arise and to determine that the peaceful uses to which the resources released may be put, it is necessary to ascertain in some detail the volume and composition of resources so released. On the basis of available data there appears to be general agreement that the world is spending roughly $120 billion annually on military account at the present time. This figure is equivalent to about 8-9 per cent of the world's annual output of all goods and services; it is at least two-thirds of the entire national income of all the under-developed countries.

4. The world's armed forces now number about 20 million persons. This figure does not include all those currently employed in supplying goods or services directly or indirectly to the armed forces. The total of all persons in the armed forces and in all productive activities resulting from military expenditure may amount to well over 50 million.

5. The available data do not, however, make it possible to assess with the desired degree of accuracy the volume of resources that disarmament would actually release. For one thing, the existing estimates may not be comprehensive: some categories of military expenditure may be excluded. Further, there may be considerable inconsistency in the pricing of military output compared with the pricing of other production, as also in the relationship between the pay of the armed forces and civilian wages and salaries. Although the data provide an inadequate basis for precise comparisions of the military burdens

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1/ See Official Records of the General Assembly, Fifteenth Session, Supplement No. 16, resolution 1516 (XV).

among countries, it can be safely asserted that within most countries military expenditure accounts for a very significant proportion of total output.

6. The great bulk of the world's military expenditure is highly concentrated in a handful of countries. Available indications are that about 85 per cent of the world's military outlays is accounted for by seven countries - Canada, the Federal Republic of Germany, France, the People's Republic of China, the Union of Soviet Socialist Republics, the United Kingdom of Great Britain and Northern Ireland and the United States of America.

7. In order to formulate economic and social policies so as to take full advantage of the opportunities afforded by disarmament, it is necessary for the countries concerned to know in detail the possible alternative uses for the resources released. To prepare a list of the resources absorbed by armaments, it is desirable that each country should, at the appropriate time, determine the composition of military expenditure and estimate the productive resources that it absorbs. The latter calculation is straightforward with respect to certain components of military expenditure. The members of the armed forces, for example, constitute a labour supply that would otherwise be available for peaceful purposes. Similarly, those research facilities employed for military purposes which are adaptable to civilian research are readily identified. Other productive resources, however, are devoted to military use only in an indirect manner which may not be apparent at first glance. While it is clear, for example, that the labour and capacity in ordnance production are employed solely for military purposes, it is impossible to state, without careful analysis, what proportion of the manpower and other resources devoted to, say, coal mining are so employed. The degree of elaboration with which statistics should be compiled and economic analysis performed varies from country to country according to the complexity and size of the national economy. Analogous considerations apply to the determination of the amount of resources required directly and indirectly to satisfy alternative peacetime needs.

8. Data made available by a number of countries show that military production is highly concentrated in a few industry groups, notably munitions, electrical machinery, instruments and related products, and transportation equipment, including airplanes and missiles. There is a similar concentration in the same industries of the employment resulting from military expenditure. In most other industries military outlays account for a relatively small proportion of total demand. Industries dependent on military expenditure also have a high degree of concentration in certain regions and cities. While this pattern of concentration of output and employment is not necessarily characteristic of all countries, it appears to apply generally to the major military powers.

9. The situation is rather different in those countries that rely upon imports for their supplies of military goods or in which the major part of military expenditure is for the pay and subsistence of the armed forces,

rather than for their equipment. In such cases, the resources devoted to military purposes consist essentially of manpower and foreign exchange.

II. THE PEACEFUL USE OF RELEASED RESOURCES

10. There are so many competing claims for usefully employing the resources released by disarmament that the real problem is to establish a scale of priorities. The most urgent of these claims would undoubtedly already have been largely satisfied were it not for the armaments race.

11. The resources liberated by disarmament within any country could be employed in part to promote economic and social progress at home and in part to expand foreign aid. The main civilian purposes for which the freed resources, whether domestic or foreign in origin, could be applied, may be classified as follows:

Raising standards of personal consumption of goods and services;

Expanding or modernizing productive capacity through investiment in new plant and equipment;

Promoting housing construction, urban renewal, including slum clearance, and rural development;

Improving and expanding facilities for education, health, welfare, social security, cultural development, scientific research, etc.

12. The various claims upon resources listed above are, of course, closely interlinked. A rise in personal consumption may necessitate new investment in industry or agriculture or both. Enlarged aid from the industrial to the underdeveloped countries may involve expanding capacity for the production of the goods that the latter countries need, notably capital equipment. As regards the under-developed countries themselves, if additional aid is to bring the greatest benefits, a larger volume of investment out of domestic resources is likely to be required; this would be facilitated by the release of internal resources through disarmament.

13. Since it can be assumed that the economy as a whole is highly flexible in the long run, the resources freed by disarmament could ultimately be used for any one or more of the purposes listed above, and in any combination. In the long run, there should be little difficulty in adapting resources to needs.

14. In the very short run, by contrast, the range of choice may be somewhat more limited. It takes time to turn swords into ploughshares or to make an office clerk or factory worker out of a soldier. Studies in some industrial countries have shown that the productive capacities released from military use would be much more immediately adaptable to the increased output of consumer durables and industrial equipment than to the production of houses, food, clothing or educational facilities. It should, however, be borne in mind that some of the major military powers now have fairly comfortable margins of productive capacity available to them. In these cases it is unlikely that disarmament would generate many new demands that could not fairly readily be satisfied from available resources.

Personal consumption and productive investment

15. Among the alternative uses of resources released by disarmament, increased personal consumption might well absorb a large share. It is fair to suppose that even in the developed countries there would be strong pressure on Governments to raise the level of living. Disarmament would, in particular, offer an important opportunity to raise incomes of low income sections of the population and to facilitate equalizing the rates of pay for men and women. In most countries, however, not all the resources freed by disarmament would be allocated directly to consumption, no matter what the level of income might be. A substantial portion of the released resources would be used for expansion of productive capacities because only such expansion can provide a firm basis for further increases in consumption.

Social Investment

16. Social investment is an important alternative both to private consumption and to industrial and agricultural investment. Its claims rest partly upon the clear urgency of the direct need for improved social amenities, and partly upon the fact that growth of industrial and agricultural productivity is dependent upon developments in education, housing, health, and other fields. Since social investment has had to compete with military claims for state funds, it (like aid to underdeveloped countries) has probably been particulary affected by the armaments race.

17. The rural and urban environments in many countries are both deteriorating, mainly under the impact of urban growth. The social and physical symptoms of this deterioration are bad housing, poor community services and delinquency, the paralysis of city traffic, and in many of the less developed countries an absence of sanitation accompanied by a high incidence of communicable disease. In many metropolitan cities of such less developed countries "squatters' settlements" already contain a considerable part of the population.

18. The magnitude of the resources required for dealing with the problem of urbanization is very large. According to rough estimates by the United Nations Bureau of Social Affairs, as many as 150 million families in the less developed countries are in need of adequate homes. These immense requirements are contributing in many under-developed countries to the maintenance of a level of spending on housing and urban development such that the pressing claims of directly productive sectors have to be curtailed.

19. Another field in which the supply of social capital is deficient in many countries is road and air transportation. The rapid increase in the stock of automobiles and the lag in road facilities in these countries during the post-war years have been accompanied by extraordinary congestion and numbers of accidents. Airports and other air facilities are also deficient in many underdeveloped areas as well as in some more advanced economies, and investment in civil aviation will claim a share of the resources freed by disarmament.

20. The development and conservation of natural resources provides another important field for increased outlays in the event of disarmament. In the United States it has been estimated that Federal expenditure requirements up to 1980 in the field of water resource development alone total almost $55 billion, while $173 billion will be needed for non-Federal programmes. The Soviet Union could advance the preparation and implementation of a number of important nature-transforming projects in various parts of the country in order to improve living and working conditions for the people.

Investment in health, education and social services

21. Another major use of the resources released from disarmament is investment to raise standards of health, education and social services. There is an urgent need for improvement in health services throughout the world. In many countries the ratio of doctors, dentists and other medical personnel to the population is inadequate and even falling, and there are also great deficiencies in the supply of hospitals and hospital beds as well as of other basic health facilities.

22. In most developed countries educational needs are rising and are bound to expand even more rapidly; with the ever wider spread of technical progress there will be a rising premium on a higher educational background, on better scientific and technological skills and on a broader range of knowledge. At the same time greater efforts will be directed towards reducing the drop-out rate of the less talented and towards ensuring that an increasing proportion of the highly talented reach upper levels. In the under-developed countries, the magnitude of the educational problem may be seen from the fact that most of them still have illiteracy rates of well over 50 per cent of the population aged fifteen years and over.

23. Apart from needs in the fields of health and education, there are urgent requirements for expansion in social services. Even in the most advanced countries, there are pronounced shortcomings in the provision of child welfare services, vocational rehabilitation agencies, community centres and other special services.

24. It is thus clear that, so far as social investment is concerned, there is already a heavy backlog of urgent need, and the recent acceleration of population growth and of technical change make it certain that the need, and the demand, will grow. Social investment therefore is likely to claim an increasing volume of resources, to which disarmament would make a welcome contribution.

Scientific research for peaceful purposes

25. The release of scientific and technical manpower would be one of the important consequences of disarmament. Amongst the major powers a significant part of the national research and development effort currently serves military purposes. The total elimination of military spending would bring about a sizable release of resources for civilian research and development.

26. Not all of the needs described above can be satisfied by single nations acting alone. In some instances their satisfaction will require international co-operation. Serious gaps exist in the permanent world-wide network of meteorological observing stations and in the corresponding telecommunication facilities. Telecommunications are important to developing economies and there is need to pursue a number of objectives in this field, including the development of networks. There is also considerable scope for international co-operation in developing the world's air transport facilities. In addition, joint projects to assist the development of under-developed countries as well as programmes of co-operation in the social and economic fields could be undertaken.

27. It is evident from the foregoing illustrative discussion of the magnitude of current and impending needs that the resources freed by disarmament would not be large enough for the many claims upon them. Though it would take active decisions by Governments in the light of national and international needs to set in motion the necessary programmes for employing the released resources, it seems abundantly clear that no country need fear a lack of useful employment opportunities for the resources that would become available to it through disarmament.

III. THE IMPACT OF DISARMAMENT ON NATIONAL PRODUCTION AND EMPLOYMENT

28. Disarmament would raise both general problems of maintaining the over-all level of economic activity and employment and specific problems in so far as manpower or productive capacity might require adaptation to non-military needs. Structural problems of conversion of the latter type will be discussed in chapter 4.

29. In the economic life of all countries, shifts in the pattern of demand and in the allocation of productive resources are continually occurring in response to changes in technology, foreign trade, consumer tastes, per capita income, the age distribution of the population, migration, and many other factors. The reallocation of productive resources which would accompany disarmament is in many respects merely a special case of the phenomenon of economic growth. There are, however, some aspects of the process of disarmament which would raise problems significantly different from those that have been experienced in the usual process of economic growth. While many of the continuous changes in the composition of demand work themselves out only over a long period of time, it seems reasonable to assume that disarmament, once decided upon, would occur more rapidly -- over a period of only a few years. The reallocation of resources attendant upon disarmament would therefore pose some special problems. The more rapid the rate of growth of an economy, however, the easier it would be to bring about the economic changes disarmament might require.

30. The conversion of resources that would be required as a result of disarmament at the present time would be far smaller, in the aggregate, than that which took place at the end of the Second World War. Thus an examination of the early post-war conversion may help to give perspective to the present problem.

The post-war conversion

31. The post-war conversion was a much larger one and involved a more rapid transfer of resources than total disarmament would require at present. During the last years of the war, the world devoted about one half of its resources to destruction. The real military expenditure and the number of people in uniform were about four times as high as today. The extent of devastation in the areas overrun by armies or bombed from the air was immense. The usual network of trade both within and between countries was thoroughly disrupted. Despite these difficulties, huge armies were quickly demobilized without a significant rise in unemployment in most countries, and the pace of recovery, particularly of industrial output, was impressively rapid.

32. During the post-war conversion, the major concern of economic policy was to restrain, rather than to maintain, over-all demand. This period was characterized by intense pressure of excess demand for both consumption and investment. Most commodities were in short supply. The wartime accumulation of liquid savings in the hands of the population guaranteed a high level of continued effective demand. As plant and equipment were released from war production and repaired or replaced, they were immediately turned to producing goods for which demand had remained unsatisfied or deferred in some countries during nearly fifteen years of the Great Depression and the war. Most of the demobilized manpower found employment in civilian occupations, while the total labour force declined, reflecting a voluntary withdrawal of some women, minors and veterans from the labour market. As supply conditions improved, price and distribution controls were progressively eased.

33. There were large arrears not only of consumption but also of investment. The capital stock had in many countries been run down by destruction, obsolescence and lack of maintenance. Technological progress had continued and in fact sharply accelerated in some fields during the war years. But much of it had remained unincorporated in plant and equipment -- during the depression because of lack of effective demand, and during the war because of diversion of resources to wartime needs. Residential construction had undergone successive postponement in some countries. These factors led to an upsurge in business and residential investment after the war.

34. In the United States, by the end of the Second World War, the military budget had accounted for over 40 per cent of the gross national product. Between 1945 and 1946, expenditure on national security was reduced by 80 per cent. The decline in military expenditure was equal to one-third of the gross national product and nearly two-thirds of personal consumption in 1944. By way of comparison it may be said that the military budget in the United States in recent years has been somewhat less than 10 per cent of the gross national product and about 15 per cent of personal consumption. The decline in total real demand was less than half the drop in military spending because of the advance in all other sectors of demand. The small decline in national output was perhaps no more than could have been expected as a result of voluntary withdrawals from the labour force and from the shortening of working hours.

35. Between August 1945 and June 1946, the size of the United States armed forces was reduced by over 9 million men. There was a small reduction in the labour force as women and minors returned to home and school, and veterans continued their interrupted education. As a result of this, and of the cutting back of overtime, unemployment in 1946 remained below 4 per cent of the labour force, despite the very extensive and rapid demobilization.

36. While the large backlog of demand of private business and consumers was responsible for much of the ease with which the post-war adjustment was made, effective government policies also helped. Taxes were reduced. There was a very great increase in transfer payments, principally veterans' cash benefits and payments related to the veterans' training and education programme. As a result, despite the massive decline in military spending, disposable income fell hardly at all.

37. In western Europe the conversion process took somewhat longer than in the United States because of the damage or destruction to productive facilities and the fact that the total output had in many cases fallen below pre-war levels. Inflationary pressures were severe. Confidence in currencies was shaken. Many key products, notably coal, steel, certain imported materials, and foodstaffs were in short supply.

38. Despite these difficulties the conversion was relatively rapid. Eighteen months after the cessation of hostilities, industrial output had recovered its pre-war level nearly everywhere except in the Federal Republic of Germany and in Italy. The demobilized armed forces were rather quickly absorbed in employment in civilian occupations. Except in the two countries just mentioned, unemployment declined well below pre-war levels. The recovery of western Europe was assisted by a considerable amount of external aid.

39. In some of the under-developed countries, the post-war recovery presented special problems. This was partly because agriculture, which formed a much larger proportion of the output of the under-developed than of the developed countries, was generally slower to recover than was industry. For some time after the war, too, delivery of equipment was delayed by conversion and re-equipment needs in the industrial countries. There is, however, no reason to believe that any future disarmament would be attended, in the under-developed countries, by the same types of problem as prevailed after the Second World War. As indicated previously, the main question in these countries would be whether development programmes could be enlarged and stepped up significantly - and in sufficiently good time - to permit the absorption of the demobilized armed forces and other resources into productive employment.

40. In the Soviet Union, experience of conversion immediately following the Second World War was significantly different from that in other countries, because of the much greater destruction and devastation which had taken place during the war. However, by 1948 industrial production was already nearly one-fifth above the 1940 level. The circumstances of any future disarmament would be much more favourable to a smooth conversion process than those at the end of the Second World War.

Experience in the centrally planned economies

41. The experience of the centrally planned economies in reducing the armed forces is also of interest. In the Soviet Union, the armed forces were reduced from 5.8 million men in 1955 to 3.6 million men in 1958. There were also reductions in military forces in other centrally planned economies during that period. No significant problems were created by the demobilization in these countries since the demand for labour was continually increasing.

Impact on national production and employment

42. National experience with general economic policies during previous conversion periods will unquestionably be valuable for policy makers in the future. In adopting a programme of general and complete disarmament, Governments would certainly wish to assess very carefully the probable impact of disarmament on national production and employment, and to examine their economic policies to ensure that these were as well thought out as possible. It would be important to maintain a high general level of domestic demand for goods and services and thereby to support satisfactory levels of output and employment.

43. The economic measures needed to maintain over-all effective demand are different in the private enterprise economies from those in the centrally planned economies. In the latter, economic decision-making is centralized. Most of the productive capacity is government-owned. The national economic plans are directed toward the achievement of a set rate of growth and higher levels of living. In the rivate enterprise economies, on the other hand, where the private sectors are much larger than the government sectors, the power to make economic decisions is diffused. Governments must therefore rely heavily, in influencing economic decision-making in the private consumption and investment sectors, on relatively indirect means such as fiscal and monetary policies. In general, the governments of underdeveloped countries cannot count as readily as those of the more developed countries on an expansion of private investment. Greater attention needs therefore to be given to undertaking whatever volume of expenditure may prove necessary in the government-owned sector in the under-developed countries.

44. The instruments of adjustment in the industrialized private enterprise economies are more highly developed, easier to bring into operation, and may be expected to work more effectively in some countries than in others. Bearing in mind, however, that a substantial part of military expenditure would probably be replaced by other government expenditure in most countries it may be concluded that the maintenance of effective demand in the face of disarmament should not prove difficult. Indeed, it should be practicable not merely to maintain the level of demand during the transition period, but to move forward to the more rapid growth in total real income that a transfer of resources from military use to productive investment would render physically possible.

45. For many under-developed countries, the effect of disarmament upon the industrial countries' demands for primary products, and thus on the export earnings of the primary producing countries, would be of great importance. So would the methods of dealing with the liquidation of strategic stockpiles. These problems are discussed in chapter 5. It is necessary to add here that the industrial countries' success in maintaining effective demand during the immediate period of disarmament would be of great concern to all primary producing countries. The significance of disarmament for an expansion of aid to under-developed countries is dealt with in chapter 6.

46. In the centrally planned economies, the maintenance of effective demand while reducing military expenditure would be simply a matter of efficiency of planning techniques. Since decisions concerning the production of military output as well as of investment and consumer goods are co-ordinated through the national economic plan, the substitution of one type of expenditure for another does not raise any basic problems for the maintenance of effective demand.

IV. STRUCTURAL PROBLEMS OF CONVERSION

47. Even with the successful maintenance of total effective demand during a period of disarmament, significant problems of adjustment would remain in specific sectors and areas of the economy. Part of the personnel released by the armed forces and the armaments industry would have to be trained or retrained so as to permit absorption into peacetime occupations. Some plant and equipment would have to be converted. Productive capacity might contract in some industries, and might have to be expanded in others. Where the manufacture of armaments has been concentrated in particular regions, it would be necessary either to shift resources out of those regions to other areas of growing demand,

or alternatively to undertake schemes of redevelopment. The necessary steps would have to be taken to modify the direction of research and of technological development.

48. It has already been suggested that the broad problem of re-adaptation of industry and manpower resulting from disarmament is not basically dissimilar from that experienced in the normal process of economic growth. The higher the rate of growth of the economy, the easier the process of adaptation. In the longer run, disarmament would allow each country to raise the rate of investment and to adapt productive capacity more adequately to the needs of the population and to the requirements of economic growth, both in private enterprise and the centrally planned economies. In the shorter run, the smoothness of the transition would largely depend on the ability of Governments to anticipate the types of problem that might arise, and on the adequacy of preparations.

49. The resources now supplying military requirements could be adapted to peacetime needs partly by shifts within industries and plants, and partly by shifts between industries.

(a) Shifts within industries and plants. In a large number of cases, it may be possible for a given plant to shift the nature of the end-product from military equipment to durable consumer goods and investment goods while using the same productive equipment and manpower. For instance, there might be a shift from tanks to tractors, from military to civilian aircraft, from naval vessels to merchant ships, or from electronic equipment for military purposes to television sets. This might be a relatively easy procedure.

(b) Shifts between industries. Other cases, however, might call for a more complex form of conversion requiring the output of some industries to be completely stopped or sharply curtailed and that of others to be correspondingly expanded. Many ordnance factories might cease to produce altogether. In some countries, the total output of aircraft, ships and boats would have to be reduced since civilian demand for such products would not fully offset the fall in military demand. On the other hand, a considerable expansion of output in the cement, brick, glass and building industries might be required should there be a shift in expenditure in favour of civilian construction. Shifts of this type cannot be accommodated within the same plant but require instead a movement of resources from one industry to another. Shifts between industries would take a somewhat longer time to accomplish than shifts within industries, the length of time depending on how major or far-removed were the shifts.

50. The extent to which the conversion would involve shifts within industries and plants as opposed to shifts between industries can be judged from studies made in a number of countries.

The problem of inter-industry shifts

51. Professor Leontief has prepared a hypothetical study of the inter-industrial ramifications of conversion in the United States on the assumption that military expenditure is replaced wholly by increases in

expenditure on other kinds of goods and services in proportion to their shares in total demand in 1958 2/. Such a reallocation of military expenditure would release 1,320,000 employees from the contracting industries for employment elsewhere. Over four-fifths of the decline in employment would be in four industries - aircraft and parts (which includes missiles), radio, ordnance, and ships and boats. In addition to the 1,320,000 employees released from contracting industries, the 2,530,000 members of the armed forces and about 790,000 civilian employees of military agencies would become available for alternative employment. Thus, about 4.5 million persons - some 6 or 7 per cent of the total labour force in employment in 1958 - would, on these assumptions, have to change their employment from one industry group to another or find civilian instead of military employment.

52. Professor Leontief estimates the number absorbed into expanding sectors to be some 600,000 less than that released from the military establishment and the contracting industries. This difference, taken literally, would imply that an increase of about 1 per cent in total government and private expenditure, spread over the duration of the disarmament process, would be required to preserve the general level of employment. It is, however, a residual figure which should be treated with reserve, since it is less than the margin of error of this hypothetical calculation.

53. This indicates the numbers who would have to move from one industry to another (or out of direct military employment) in the event of very rapid disarmament. If the operation were to extend over a number of years, the change per annum would be only a fraction of the total.

54. Under-developed countries generally have been meeting their requirements for military goods and services by imports, so that their disarmament would release foreign exchange rather than industrial workers. Disarmament would also free members of the forces with many useful skills and training.

55. In the centrally planned economies, as indicated previously, productive capacity is usually fully utilized. Thus it would be necessary to convert plants producing military equipment to production of durable consumer goods and of such investment goods as can be produced in them with only minor retooling. Such conversion could be achieved rapidly. In the longer run, disarmament would make possible substantial increases of investment, so that the more adequate adaptation of productive capacity to the needs of the population and to the requirements of economic growth could proceed fairly rapidly. The Governments of the centrally planned economies state that there will be no difficulty in absorbing released manpower.

2/ W. Leontief and M. Hoffenberg, "The Economic Effects of Disarmament" Scientific American (New York), Vol. 204, No. 4, April 1961, pp. 47-55.

Special problems

56. The preceding analysis of the changes resulting from the process of reallocation of military expenditure to other purposes suggests that the net shifts in employment and output would be relatively small. As already indicated, however, special problems would arise from a concentration of the military effort in certain industries or areas. These problems may be broadly classified as follows:

(i) Adaptation of skills to peace-time requirements.

(ii) Problems of assistance to particular enterprises, industries and localities, heavily oriented to military use.

(iii) Reorientation of research and technological development.

(i) Adaptation of skills

57. In some instances, the skills that are essential for service in the armed forces or in some of the major industries producing military goods may not be readily adaptable to the requirements of civilian employment. Consequently, there would arise a necessity to retrain part of the skilled manpower and to train some of the unskilled.

58. (a) Armed personnel and employees in the Ministry of Defence. Most of the officers in modern armed forces have received training that would fit them easily for technical, engineering, medical and similar posts in civilian life. The demobilization of the non-professional members of the armed forces would involve a much larger number of persons. But most of these men have been drawn from civilian life where they were previously engaged in non-military occupations. In many cases, they have acquired new technical skills while in military service. In most of the under-developed countries, the regular armed forces possess a much higher level of industrial and technical skills than the civilian population; this would tend to give them a relatively greater chance of being absorbed into civilian employment.

59. (b) Industries producing military goods. As pointed out above, the problem of conversion in the industrial countries3/ is likely to be a short-term one for most industries. In industries depending heavily on military orders, many of the employees possess a level of skill that should find gainful employment in other branches of production, so long as over-all effective demand is rising. Moreover, where some form of retraining or additional training would be needed for employment, it could be acquired through the facilities for apprenticeship and on-the-job training often provided by individual firms or plans for their new labour force.

60. In this age of automation the demand for highly skilled labour is rising faster than the demand for semi-skilled and unskilled. Therefore a significant number of those who would be released in the latter categories might be faced with difficult problems, particularly if they were of an advanced age. Governments should stand ready to assist the reabsorption of such workers into productive employment.

3/ Owing to virtual absence of major military goods industries in the under-developed countries, this question has relatively limited relevance for them.

(ii) Particular enterprises and localities

61. Owing to the concentration of military output in a few industries, termination of military contracts would bear specially upon the activities of particular enterprises. These would have a choice of three courses of action; complete shut-down, the adaptation of existing plant and equipment to the production of other goods through major retooling, and investment in entirely new plants. Similar problems on a much larger scale were faced at the end of the last war and tackled with a considerable degree of success.

62. The geographical distribution of the activity based on military expenditure is very uneven in many countries. The readjustments necessitated by disarmament would therefore impinge particularly heavily on certain areas and localities. Various forms of public and other assistance would thus prove necessary to facilitate readjustment. Measures of three types would be required. First, attempts should be made to diversify the structure of employment by developing new industries where possible. Secondly, adequate relocation allowances should be provided to facilitate the movement of those who are mobile to areas where the labour market is expanding. Thirdly, adequate relief should be granted to those whose attachment to the locality is too deep or whose age is too advanced to contemplate moving to other areas. The costs of the necessary measures would be very small in relation to the resources that disarmament would release.

(iii) Reorientation of research and technological development

63. In the centrally planned economies Governments have always played a major role in promoting research and development. In the private enterprise economies also, this role has expanded everywhere in recent years, particularly through the growth of research for military purposes. No reduction in the actual employment of scientific and technical personnel need be feared, however, because the demand for civilian research would increase rapidly. Indeed, one of the main reasons why scientific research is still far from adequately applied in many civilian fields is the fact that highly qualified personnel have been scarce, and have been pre-empted by military demands.

V. THE IMPACT OF DISARMAMENT ON INTERNATIONAL ECONOMIC RELATIONS

64. Disarmament would be bound to have favourable effects on the development of international economic relations. The political detente that would accompany an international disarmament programme would in itself imply that nations were willing to reconsider their economic relations with one another. The consequent relaxation of international tensions would provide a sound basis for reduction of trade barriers and for modification of existing trade agreements and trading practices. In the long run this would encourage an expansion of international trade, a more rational international division of labour and a more effective use of the world's resources. In the short term it might help conversion by generating new demand for exports from existing sources of supply that could be satisfied fairly easily from existing capacities.

65. The relaxation of international tension would benefit trade through the elimination of the concern with national defence as a factor affecting national trade policies. The needs of national defence have long been accepted as a legitimate reason for the pursuit of discriminatory and protectionist policies.

66. Disarmament would bring about a change in the composition and rate of growth of output and thus affect the structure and rate of expansion of world trade. In so far as increased investment and greater economic aid would accelerate the rate of economic growth in developed and under-developed countries, a more rapid expansion of world trade could be anticipated. However, there are more immediate effects that might follow the shift in demand; these hinge on the difference between the import content of military expenditure and the import content of the increments to consumption, investment and foreign aid that disarmament would facilitate.

67. Some exports of primary products, such as petroleum, rubber and most metallic ores depend significantly at present on direct and indirect demand generated by military purchases. Some 15-16 per cent of world copper output has served, directly and indirectly, military purposes. For tin, nickel, lead and zinc the corresponding figure is over 9 per cent; for petroleum, between 8 and 9 per cent. In view of the well-known sensitivity of the prices of these products to changes in demand, the elimination of all armament expenditure, if there were no offsetting rise in civilian demand, could have a seriously adverse effect on the income of those under-developed countries whose exports consist largely of such raw materials. However, the demand for these raw materials would be reduced only fractionally - by less than 2 per cent - if the elimination of military expenditure were accompanied by a corresponding increase in private and public non-military expenditure.

68. Since disarmament may be expected to result in an acceleration of economic growth, it should stimulate the growth of demand for primary production in general. Coupled with the fact that disarmament should be associated with a tendency for the advanced countries to open their markets more widely to foodstuffs, for instance, this would make for a substantial growth of primary commodity trade. Accelerated economic growth would be still more powerful in increasing total demand for manufactures. The tendency to reduce trade barriers should be particularly important in enabling developing countries to increase their exports of manufactures to the more highly developed.

69. Both private enterprise and centrally planned economies should also be prepared to open their markets more widely to under-developed countries once the trade restrictions imposed for security reasons are lifted. There might, however, be instances in which declines in demand for particular commodities would cause appreciable difficulties. In these cases consideration should be given to special aid for the countries concerned, in the same way as for particular industries or areas within the principal disarming countries.

70. The immediate impact of disarmament on international economic relations during the conversion period is a matter that needs to be given careful study along with the other conversion problems already discussed in chapters 3 and 4. Changes in the level of aggregate economic activity associated with disarmament in the major industrial countries would be a major determinant of the level of international trade during the conversion period.

71. If appropriate steps are taken it should be possible even in the short run to avoid any significant reductions in the general level of primary product prices, but it needs nevertheless to be realized that any failure to achieve this goal could have serious consequences. For many of the countries mainly dependent on the export of primary commodities, a percentage decline in their export earnings which might appear small arithmetically could cause grave damage.

72. A more widespread problem relates to particular countries that are largely dependent on the export of those commodities for which world demand might suffer a temporary decline. In conjunction with the formulation of any disarmament programme, therefore, it is highly desirable that a detailed study be undertaken on the changes in demand for the various primary commodities which would result from disarmament. No country should be allowed to suffer a disruption to its economic life, even temporarily, as a result of disarmament.

VI. THE EFFECTS OF DISARMAMENT ON THE VOLUME AND FRAMEWORK OF AID FOR ECONOMIC DEVELOPMENT

73. The promotion of economic and social development in under-developed countries is one of the most important ways in which the resources released by disarmament could be put to use. National efforts and international co-operation in the development of the under-developed countries have so far not brought about the desired acceleration of economic growth. An acceleration of the rate of growth of under-developed countries depends upon many factors, including the adoption of appropriate national development programmes and, in many cases, social and institutional reforms. Among these programmes an important role must be assigned to encouragement of productive investment both from domestic and foreign resources. To this end world disarmament could make a major contribution. Despite the inadequacies of the available statistics, it appears that the world's military expenditures far exceed the combined gross investment expenditures of the less developed areas; they are probably at least five times as large and may be much greater. A much larger volume of resources could thus be allocated to investment for productive development in these countries even if only a fraction of the resources currently devoted to military purposes were used in this way.

74. Disarmament could bring about a marked increase in the rate of growth of real income in the poorer parts of the world. This conclusion is reinforced by a comparison of the volume of resources now being devoted to military use with the various estimates made in recent years of the external financial needs of the under-developed countries. The total amount of foreign capital required by the under-developed areas, over and above their domestic resources devoted to investment, is estimated to range from $6 billion to $10 billion annually. These figures are based on conservative assumptions. After allowing for the present flow of foreign capital through existing institutions and arrangements, it is believed that there is a deficiency of about $3 billion a year that needs to be made good in order to achieve the modest annual rate of growth in income of 2 per cent per capita.

75. In the longer run, productive capacities can be adapted to any changed patterns of demand, and provided that the needs of under-developed countries are known in sufficient detail, no serious problems should arise in matching resources to uses. Even in the short run, however, it seems probable that a significantly large proportion of the resources absorbed for military use would indeed prove to be of a type useful for investment in under-developed countries. An important proportion of military expenditure absorbs the output of heavy industry and of the engineering and construction industries. The output of these industrial sectors could undoubtedly make a valuable contribution to the industrialization

of the less developed areas and to their accumulation of social capital. Transportation and communication equipment, for example, is an important component of military expenditure and is urgently required by under-developed countries.

76. Disarmament would also release personnel, such as scientific research workers and engineers, who could be utilized for other purposes. In the event of disarmament, it should prove possible for the industrialized countries to provide greater technical assistance and thereby help remove one of the serious limitations to development efforts in these countries.

77. With respect to the impact of disarmament on the framework and structure of aid to under-developed countries several points need to be made. If we leave out of account - as seems proper in the present context - short-term finance of all kinds, private grants, and military and defence-support aid, the principal international flows of capital to under-developed countries consist of (1) official grants, (2) official loans and credits on non-commercial terms, (3) long-term loans and credits on commercial terms made by national governments and by international authorities, and (4) private long-term loans or direct investment. Unlike capital flows of the last three types, official grants do not, of course, burden the recipient country's balance of payments. Official loans and credits on non-commercial terms are less burdensome than public or private lending on commercial terms: hence the distinction between the second and third categories.

78. The increased international flow of capital to under-developed countries that is certain to result from disarmament could take any one or more of the forms referred to above. As regards the flow of private capital, it may be assumed that this would continue to respond to commercial considerations. At the present time, nine-tenths or more of official grants and loans are given under bilateral programmes. In so far as political circumstances have had any weight in determining the direction and form of aid, effective disarmament and the related lessening of international tensions should improve the prospects for more co-operative international action.

79. It should be realized that the repayment of loans granted on commercial terms may impose heavy burdens on the balances of payments of under-developed countries. It seems urgent that as large a proportion of economic aid as possible should take the form of grants or "soft" loans. Disarmament would likely facilitate the increased flow of such aid. This is so because the savings afforded by disarmament would provide the aid-giving countries with a favourable opportunity to increase their assistance without imposing an additional burden on civilian expenditure.

80. Because the competing claims in developed countries are also urgent, there is a serious possibility that the financial resources released by disarmament might be rapidly absorbed by purely national aims. It is therefore desirable that an appropriate proportion of these resources should be allocated to international aid in its various forms simultaneously with their use for domestic purposes. It must be emphasized that foreign aid can play only a supplementary role in the development of under-developed countries and that the responsibility for initiation and intensification of development efforts would continue to lie entirely with the governments and peoples concerned.

VII. SOME SOCIAL CONSEQUENCES OF DISARMAMENT

81. The economic and social consequences of disarmament are inextricably intertwined. As already discussed, it would be possible to bring about a significant improvement in many aspects of social life, provided that some of the resources released by disarmament were earmarked for fields such as education and scientific research, health, housing and urban development. In a disarmed world, a general improvement could be expected in the level of living and in the conditions of under-privileged and low-income groups such as the old and retired people whose share in the social well-being is often meagre, even in the more developed countries. With the end of the armaments race, Governments would accord these social objectives a higher priority than in the past.

82. The more rapid rate of economic growth and the increase in productivity that may be expected to result from disarmament might well permit a reduction in working hours, an improvement in the conditions of work and a lengthening of paid vacations. To take full advantage of the resultant longer leisure and the higher level of living, wider cultural facilities would be required. In this context, education acquires special significance as a means of disseminating culture.

83. In the domain of personal and family life, disarmament and recession of the threat of war would decrease tensions which often bring about psychosomatic illnesses. Human life would acquire a new meaning, once war and preparations for war were eliminated.

84. In a disarmed world, the danger that security considerations and armed forces might play an excessive role in forming the values of the community would be eliminated. It is important to note, however, that attention would need to be paid to constructive outlets for individual and collective asperations.

85. If confidence is one of the necessary conditions for concluding a disarmament agreement, an increase of confidence would also be one of its happiest consequences. A decrease in tensions and in the influence of groups interested in armaments would bring about a profound change in the form and content of international relations. Political and economic conflict between nations, with its attendant risk of war, would more rapidly be replaced by constructive emulation. Scientific co-operation between nations would advance more rapidly, and the peaceful utilization of science and technology would be accelerated. The arts, too, would greatly benefit from an extension of international exchanges.

VIII. CONCLUSION

86. The Consultative Group is unanimously of the opinion that all the problems and difficulties of transition connected with disarmament could be met by appropriate national and international measures. There should thus be no doubt that the diversion to peaceful purposes of the resources now in military use could be accomplished to the benefit of all countries and lead to the improvement of world economic and social conditions. The achievement of general and complete disarmament would be an unqualified blessing to all mankind.

DISARMAMENT AND DEVELOPMENT

ST/ECA/174

INTRODUCTION

1. Pursuant to General Assembly resolution 2685 (XXV) on the economic and social consequences of disarmament, we were asked to suggest in the present report how a link might be established between the Disarmament Decade and the Second United Nations Development Decade and to propose measures for mobilizing public opinion accordingly.

2. We believe that these two objectives - disarmament and development - are of the greatest importance to the world community. The United Nations has agreed to seek each one vigorously in its own right, regardless of the pace of progress in approaching the other.

3. Some general considerations have been our points of departure:

(a) The main motives for pursuing disarmament are to avoid war, to strengthen peace and security throughout the world and to foster a climate of understanding and co-operation. The achievement of these aims would create very favourable conditions for development;

(b) Disarmament agreements have not yet led to any reduction in military expenditure;

(c) In striving by the adoption of measures for disarmament, countries unquestionably also take into account the great economic possibilities implicit in disarmament through the redirection of resources to goals of peaceful development. This is a matter of great importance to all countries, developed and developing alike.

(d) The problems of achieving disarmament and of making rapid progress with economic and social development, as well as the problem of generating more aid for developing countries are essentially political. Disarmament will come only if people change the direction of the policies which have led to arms races. More aid, and other measures aimed at helping developing countries, will come only if people to a greater degree adopt and act upon internationalist values.

(e) There are here two separate political objectives - disarmament and development - and two sets of political motives, one for each. The pursuit of each objective can proceed without the other, and it should proceed urgently. These two objectives can, however, be linked to each other because the enormous amount of resources wasted in the arms race might be utilized to facilitate development and progress;

(f) The blatant contrast between this waste of resources and the unfilled needs of development can be used to help rouse public opinion in favour of effective disarmament, and in favour of the achievement of further progress in development, particularly of the developing countries;

(g) The employment of the resources released by disarmament, especially for development purposes, is not likely to take place spontaneously; it will require concerted action in the part of the Governments of the countries concerned, both developed and developing.

I. DISARMAMENT

4. So far, in the field of disarmament, several important international agreements on certain types of arms have been reached; they have been "partial" or "collateral" measures, mostly of a non-armament character. They may have forestalled increases in military spending, but they have not reduced it.

5. The magnitude of the resources used for armaments was analysed in a recent report of the Secretary-General.1/ World military expenditures in 1970 were roughly $200 billion, i.e., 6.5 per cent of the gross national product (GNP) of the countries of the world. Military expenditures of the countries which provide aid for development are estimated to be approximately 6.7 per cent of their GNP, or 25 times greater than the official development assistance they provide. The major part of the world's military expenditure is made by a very small number of countries; the six main military spenders are responsible for more than four-fifths of the total. If military expenditures continue to grow during the 1970s, at the same average annual rate as in the 1960s (3 per cent a year) they will reach $280 billion (at 1970 prices) in 1980. If their share in the GNP were to remain the same as in 1970, the figure would reach $360 billion.2/

6. An agreed programme for the Disarmament Decade does not exist. General and complete disarmament under effective international control remains the main objective. Its achievement would represent a momentous political change and would release massive resources for peaceful uses. Partial measures are a second best. They are often seen as first steps to political understanding and general disarmament, but if they are to be fully effective, it is important that they should be agreed to by all the relevant countries. This is not true now. Partial measures do not always lead to reductions in military expenditures.

1/ Economic and Social Consequences of the Arms Race and of Military Expenditures (United Nations publication, Sales No. E.72.IX.16).

2/ These statistics are based on the sources used in the Secretary-General's report (ibid.). The data on military expenditures since 1960 used in that publication were obtained from the United States Arms Control and Disarmament Agency, which has subsequently revised and updated them. (See World Military Expenditures, 1971, Washington, D.C., 1972.) It is the revised and updated statistics that the Group has used in preparing the present report. The six main military spenders are China, the Federal Republic of Germany, France, the United Kingdom of Great Britain and Northern Ireland, the United States of America and the USSR. The projected figures that we have prepared are simply illustrations based on assumptions.

7. One measure which might help the transition from partial measures to general and complete disarmament would be an agreement to limit and reduce military budgets. Without comprehensive over-all economic limitations of this kind, arms limitation agreements expressed in terms of numbers of specific types of weapons cannot prevent an arms race in the form of expenditure on the development and production of entirely new kinds of weapons not covered by existing agreements.

8. The most recent partial measure has been the agreement between the Union of Soviet Socialist Republics and the United States of America on strategic arms, made earlier in 1972. Since it places no limit on qualitative improvements in missiles, it does not ensure a reduction in spending.

9. In the continuing multilateral negotiations for disarmament, there are formal commitments to follow up some of the partial agreements already made with further agreements in the same field - for example, a comprehensive test ban in place of a partial test ban, a ban on the possession and production of chemical as well as biological weapons, and also the genuine demilitarization of the ocean. Some of the commitments have now been on the books for many years.

II. DEVELOPMENT PROSPECTS AND NEEDS

10. The International Development Strategy for the Second United Nations Development Decade (General Assembly resolution 2626 (XXV)) calls for a 6 per cent target rate of growth of gross output for developing countries. If population growth is held down to about 2.5 per cent, the rate of growth of income per person will be about 3.5 per cent. This target - if achieved - is encouraging. But the prospect is nevertheless not satisfactory. At a rate of growth of 3.5 per cent, average income per person in the developing world would rise from the 1970 level of $200 to the level of only around $280 (in 1970 prices) by 1980.

11. One of the basic requirements for raising a country's rate of economic growth is an increase in the volume of resources allocated annually to productive investment. With a few special exceptions, developing countries cannot realistically be expected to be able to provide from domestic savings alone sufficient investment to attain the necessary rate of growth rapidly. Moreover, in some of them, the effective utilization and mobilization of domestic resources often cannot be achieved without foreign technical and financial assistance.

12. The economic growth of developing countries will of course continue to depend still more on the contribution to their external resources made by expansion of their exports, in particular of their exports to high-income countries. To encourage such trade expansion, developed countries must reduce the obstacles which impede exports of developing countries at the present time.

13. At present the flow of official development assistance to developing countries - which depends on governmental decisions taken in the developed countries - amounts to only about 0.35 per cent of the gross national product of the latter countries. In order to achieve the Second United Nations Development Decade target of 6 per cent growth on average, it is estimated that official development assistance from developed countries would have to increase to 0.7 per cent of their GNP.

14. Even if growth objectives of the Second United Nations Development Decade are attained, the problem of reducing mass poverty and unemployment in the developing countries of the world still remains. More efforts therefore should be made by the world community. In most cases no major problem would arise as to the capacity of developing countries to absorb an increased flow of foreign assistance provided that this assistance is extended on appropriate terms. In particular, there should be a marked increase in untied grants; and, in the case of the poorest countries, possibly for the purpose of increasing consumption.

III. THE INTERRELATIONSHIP BETWEEN DISARMAMENT AND DEVELOPMENT

15. The unanimous conclusion of the report of the Secretary-General entitled Economic and Social Consequences of the Arms Race and of Military Expenditures3/ contains the following statement:

> "...A halt in the arms race and a significant reduction in military expenditures would help the social and economic development of all countries and would increase the possibilities of providing additional aid to developing countries."4/

A. The link with respect to resources in general

16. The transfer to peaceful uses of resources used in each country for military purposes will bring about greater satisfaction of civilian needs of the country. The resources thus released, sometimes referred to as the "disarmament dividend", can be redirected to raise standards of living and to promote faster growth.

17. In the developing world as a whole, the share of gross product claimed by military expenditure is a little more than 4 per cent; in 17 developing countries, mostly in the regions at war in the Far East and the Middle East, the average share climbs to around 13 per cent. On the other hand in 46 countries, mainly in Africa and Latin America, the average share is only 1.5 per cent of their gross product. Therefore, there will be considerable variation among developing countries in respect to the magnitude of their own "disarmament dividend".

18. In case of general and complete disarmament - and also, to a lesser extent, when the cuts in military expenditure are significant - economic assistance granted by developed to developing countries could and should be greatly increased and would merit high priority in the allocation of released resources. The higher the level of per capita income of a developed country, the stronger is the case for it to contribute to the promotion of growth in developing countries, not only through increased economic aid but also through increased international trade.

3/ See foot-note 1/ above.

4/ Ibid., para. 120.

19. Many developing countries import their arms from abroad. Although many of these arms are provided as aid or on easy terms, disarmament would still release significant foreign exchange resources which could be used for the import of investment goods necessary for economic growth. As disarmament is accomplished, the amount of military aid granted by the developed countries should be used for the expansion of economic aid to developing countries.

20. Disarmament could make an important contribution towards closing the increasing economic "gap" between developing and developed countries. A general (proportional) reduction in military expenditures will increase the non-military part of the GNP of the developed countries proportionally more than that of the developing nations. However, a simultaneous increase in the fraction of GNP in the advanced donor countries allocated to international development assistance could not only prevent a widening of the "gap", but contribute greatly to its closing. Such a rise in the fraction of their combined GNP allocated by developed countries to development assistance would have to be larger the greater the difference between the military expenditures - expressed in percentages of their respective GNPs - of the two groups of countries. When applied to the configuration of GNP, military expenditure and development assistance estimated for 1970, a rough calculation shows that a 20 per cent general reduction in military expenditures would contribute to the reduction of the economic gap between the two groups if such developmental assistance were raised globally in the same proportion or slightly more.

21. Recognizing that each donor country will want to determine its own policies for expanded economic assistance, the Group hopes that these decisions will secure an adequate increase in assistance for development.

B. The link with respect to specific resources

22. Most of the resources released by disarmament, total or partial, would be readily transferable to other uses - for example, manpower, food, clothing, transport, fuel and products of the metal and engineering industries. Budgetary action to raise civil demand will be enough to induce redeployment of released resources either to investment or to consumption, public or private.

23. Some other resources, for example, nuclear weapon plants and military aircraft and missile plants may not be readily transferable. Some alternative civil uses may be found, but only a part of the specialized resources could probably be absorbed. For the rest, other industries will have to be brought into the areas where the specialized military production has been concentrated and retraining programmes will be needed for those whose skills become redundant. The Group suggests that Governments, when placing orders for specialized military production or creating specialized plants likely to give rise to these difficulties in the event of disarmament, should make advance plans to deal with the redeployment to peaceful work of the manpower and plant (in so far as the latter is reusable).

24. Apart from catering for these areas of special difficulty, all countries might be urged to consider what would be the most valuable ways of redeploying resources from military to civil use and to consider, in particular: (a) which resources now used by the military might make a particularly valuable contribution to development in any area; and (b) in the light of such an assessment, which

specialized resources would be suitable as aid or technical assistance from developed to developing countries. Planning of this kind would benefit from international co-operation. The Group believes that the feasibility of making such plans should be explored now.

25. Research and development needs special consideration. The world's expenditure on research and development has grown tremendously since the Second World War, but a very large part of the effort has been military. It is estimated by the Secretariat that world expenditure on research and development now amounts to $60 billion, or about 2 per cent of world gross product, of which about $25 billion is for military purposes. An overwhelming part of these expenditures are made in the advanced countries.

26. These research and development resources, when diverted to peaceful uses, might have a great impact on development. There is a vast range of problems in the developing countries and there are huge sophisticated resources absorbed by military research and development in the developed countries. The range of possibilities of transfer appears to be extremely wide. Our conclusion is that it would be useful constantly to consider what disarmament steps are in the offing, how far these may release resources and how they may best be used to promote development either at home or in the developing countries.

27. We considered what specific resources would be released for development by four partial measures we adopted as hypotheses and came the following conclusions:

(a) A comprehensive test ban. It seems uncertain whether peaceful nuclear explosions will prove to be attractive economically very soon. If they do prove to be attractive economically, it is important that they should be made available to the non-nuclear weapons countries, under appropriate international arrangements. There appears to be great continuing scope for the development and application of nuclear energy; resources released by a comprehensive test ban might directly or indirectly permit an expansion of effort here. It is estimated that complete nuclear disarmament would offer promise of additional benefits. More than 20,000 nuclear scientists and engineers would become available, some of whom could be assigned to assist the peaceful nuclear programmes of developing countries.

(b) Chemical disarmament. Biological disarmament has already released resources that are valuable for research into disease, animal and human. Chemical disarmament would add resources useful for ecologically acceptable pest control and toxicological research.

(c) Demilitarization of the sea-bed and deep-sea environment. Sea-related activities of benefit to developing countries could, with appropriate planning, be stimulated by complete demilitarization of the sea-bed and deep-sea environment and by naval and other disarmament. Benefits would be made possible by expanded programmes of research and exploration using water-borne devices and remote sensing from satellites and aircraft. Mineral exploitation of the sea-bed could be facilitated, enabling the world community to better utilize this common heritage of mankind.

(d) The elimination of all foreign bases and withdrawal of foreign troops. This measure would influence the balances of payments between the countries with troops or installations abroad and the countries where those troops or installations are sited.

IV. MOBILIZING PURLIC OPINION IN FAVOUR OF PROMOTING DISARMAMENT AND DEVELOPMENT

28. The Group considers that at the present stage public opinion should be mobilized mainly with a view to following up the results already achieved in the field of disarmament by new steps towards general and complete disarmament. In the continuing multilateral negotiations for disarmament, there are formal commitments to follow up some of the partial agreements already made with further agreements in the same field. The idea of the Disarmament Decade could be utilized in such publicity endeavours, not least in order to keep public opinion concerned with obtaining real achievements before the Decade is up. If agreement is reached on holding a world disarmament conference, and if the conference is held, this would facilitate the mobilization of public opinion.

29. Likewise, the goals of promoting economic development in order to secure social development for all people in all nations, must receive a greater share in the building of public opinion everywhere.

30. The purpose of mobilizing public opinion for both these imperative goals - disarmament and development - may be effectively served by constantly publicizing reminders of the blatant contrast between the waste of resources on armaments and the great unfilled needs of social and economic development and in particular, the shocking discrepancy between world expenditures for armaments and for aid to the poorer nations.

31. In implementing such action schemes for public information, some of the more specific statements and recommendations of this report should be utilized:

(a) In the United Nations reports on disarmament and on development, the comparison between military and civilian expenditures should be brought to the foreground;

(b) Within the framework of the periodic reviews and appraisal of progress towards achieving the goals and objectives of the International Development Strategy for the Second United Nations Development Decade, progress in disarmament should be given consideration, and considerable publicity should be given to the ensuing debate;

(c) The appeal voiced by a group of experts in 1971 in the report entitled Economic and Social Consequences of the Arms Race and of Military Expenditures5/ should be reiterated. The Group wants particularly to support the general recommendation: "In order to draw the attention of the Governments and peoples of the world to the direction the arms race is taking, the Secretary-General should keep the facts under periodic review".6/

5/ See foot-note 1 above.

6/ Ibid., para. 120 (4)

(d) Public discussion in international forums and within Member States should be encouraged in regard to the statement in the present report that unless disarmament savings are accompanied by a sufficient increase in development aid, the income gap between developed and developing countries is apt to widen.

(e) The imagination of the public in all countries should be kindled by information on conversion possibilities.

(f) In particular, all media should draw attention to the tremendous inherent potentialities of redirecting military research and development to development objectives.

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