

**REPORT  
OF THE COMMITTEE  
ON THE PEACEFUL USES  
OF OUTER SPACE**

**GENERAL ASSEMBLY**  
OFFICIAL RECORDS : TWENTY-FOURTH SESSION  
SUPPLEMENT No. 21 (A/7621)



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# 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 present report was adopted as an interim report at the conclusion of the first part of the twelfth session of the Committee. A report on the resumed session will be printed subsequently as an addendum to the present report under the symbol A/7621/Add.1 (Official Records of the General Assembly, Twenty-fourth Session, Supplement No. 21A).

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# ABBREVIATIONS

COSPAR	Committee on Space Research of the International Council of Scientific Unions
FAO	Food and Agriculture Organization of the United Nations
IAEA	International Atomic Energy Agency
ICAO	International Civil Aviation Organization
ILO	International Labour Organisation
IMCO	Inter-Governmental Maritime Consultative Organization
ITU	International Telecommunication Union
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
WHO	World Health Organization
WMO	World Meteorological Organization

## I. INTRODUCTION

1. The Committee on the Peaceful Uses of Outer Space met at United Nations Headquarters, New York, on 22 October 1968 and held the first part of its twelfth session from 8 to 17 September 1969. At its 60th meeting on 22 October 1968, the Committee elected Mr. Heinrich Haymerle (Austria) Chairman, succeeding Mr. Kurt Waldheim (Austria). Mr. Gheorghe Diaconescu (Romania) served as Vice-Chairman, and at the 61st meeting on 8 September 1969 Mr. Souza e Silva (Brazil) was elected Rapporteur to replace Mr. Geraldo de Carvalho Silos (Brazil). The verbatim records of the Committee's meetings were circulated as documents A/AC.105/PV.60-69.

### Meetings of subsidiary bodies

2. The Scientific and Technical Sub-Committee held its sixth session at United Nations Headquarters, New York, from 17 to 28 March 1969 under the chairmanship of Dr. R.S. Rettie (Canada). The summary records of the Sub-Committee's meetings were circulated as documents A/AC.105/C.1/SR.49-62. The recommendations made by the Sub-Committee in its report (A/AC.105/55 and Corr.1) are reproduced in annex II.

3. The Legal Sub-Committee held its eighth session at the United Nations Office at Geneva, from 9 June to 4 July 1969, under the chairmanship of Mr. Eugeniusz Wyzner (Poland). The summary records of the Sub-Committee's meetings were circulated as documents A/AC.105/C.2/SR.111-131. The Sub-Committee's report was circulated as document A/AC.105/58. The text is reproduced in annex III.

4. The Working Group on Direct Broadcast Satellites set up under General Assembly resolution 2453 B (XXIII) of 20 December 1968, held its first session at United Nations Headquarters, New York, from 11 to 20 February 1969, and its second at the United Nations Office at Geneva, from 28 July to 7 August 1969. Mr. Olof Rydbeck (Sweden) was elected Chairman of the Group. The Working Group's reports on its first and second sessions were circulated as documents A/AC.105/51 and A/AC.105/66 and Corr.1 and 2, respectively. The text of the Working Group's conclusions is reproduced in annex IV.

### Twelfth session of the Committee

5. At its 61st meeting on 8 September 1969, the Committee adopted the following agenda:

1. Opening statement by the Chairman.
2. Election of the Rapporteur.

3. Report of the Committee to the General Assembly:

- (a) Report of the Scientific and Technical Sub-Committee (A/AC.105/55 and Corr.1 and Add.1-3);
- (b) Report of the Legal Sub-Committee (A/AC.105/58);
- (c) Reports of the Working Group on Direct Broadcast Satellites (A/AC.105/51 and A/AC.105/66 and Corr.1 and 2).

6. The opening statement by the Chairman is reproduced in annex I.

7. In the course of the discussion, statements were made by the representatives of Argentina, Australia, Austria, Belgium, Brazil, Bulgaria, Canada, Czechoslovakia, France, Hungary, India, Iran, Italy, Japan, Mexico, Poland, Romania, Sweden, the USSR, the United Kingdom and the United States. The statements are reproduced in the verbatim records of the 62nd to 66th meetings.

8. The Committee also heard statements by the representatives of FAO, ITU and UNESCO and the representative of COSPAR. The statements are reproduced in the verbatim records of the 63rd to 65th meetings.

9. The Committee decided to conclude the first part of its twelfth session with the adoption of this interim report. In addition the Committee determined that in view of its mandate in General Assembly resolution 2453 B (XXIII) "to complete urgently the preparation of a draft agreement on liability for damage caused by the launching of objects into outer space and to submit it to the General Assembly at its twenty-fourth session", consultations and negotiations should be undertaken among the States members of the Committee under the leadership of its Chairman and in consultation with the Chairman of the Legal Sub-Committee with a view to coming to an agreement on a draft convention on liability for damage. The Committee decided to hold its resumed session at the earliest possible date, and in any case not later than 12 November 1969, in order to discuss the results of these consultations and negotiations. The Committee further decided that it would submit the report of its resumed session on this matter to the General Assembly at its twenty-fourth session (A/7621/Add.1).

10. The Committee's recommendations and decisions are set out in section II below.

## II. RECOMMENDATIONS AND DECISIONS

### Report of the Scientific and Technical Sub-Committee

11. The Committee took note with appreciation of the Scientific and Technical Sub-Committee's report on the work of its sixth session (A/AC.105/55 and Corr.1 and Add.1-3). It endorsed, subject to the contents of paragraphs 12 and 16 below, the Sub-Committee's recommendations regarding the exchange of information, the encouragement of international programmes, the promotion of the applications of space technology, international sounding rocket launching facilities, education and training, and the future work of the Sub-Committee. The text of the Sub-Committee's recommendations is reproduced in annex II.

12. The Committee endorsed the recommendation for the appointment by the Secretary-General of a qualified individual with the full-time task of promoting the practical applications of space technology. It was noted that the Scientific and Technical Sub-Committee had recommended in paragraph 24 of its report (A/AC.105/55 and Corr.1) that this individual should be appointed to the Outer Space Affairs Division of the United Nations Secretariat. In this connexion a proposal was made that the individual appointed should be attached to the Department of Economic and Social Affairs. A suggestion was also made that discretion should be left to the Secretary-General in deciding where in the Secretariat the expert should work. Some delegations further considered that the Secretary-General should request the inter-departmental working group mentioned in document A/AC.105/L.41, paragraph 20, to review the Secretariat arrangements dealing with outer space, and present a report on this subject to the Committee at a subsequent stage.

13. The Committee, having noted with complete satisfaction the work being carried out at the Thumba Equatorial Rocket Launching Station (TERLS) in India, recommended that the General Assembly should continue to grant United Nations sponsorship to TERLS.

14. The Committee took note that, in accordance with General Assembly resolution 2453 (XXIII), the Secretary-General, in consultation with the Chairman of the Committee, had appointed a small group of scientists, drawn from States which were members of the Committee and were familiar with space research and facilities, to visit the Mar Chiquita station in Argentina between 2 and 10 October in order to report to the Committee on the Peaceful Uses of Outer Space on its eligibility for United Nations sponsorship, in accordance with the basic principles endorsed by the General Assembly in 1962. The Committee welcomes the Secretary-General's decision and looks forward to receiving the experts' report.

15. The Committee took particular note of the Sub-Committee's decision that henceforth it would itself promote more energetically the applications of space technology and in future meetings would consider various concrete initiatives including, for example, panel meetings in collaboration with appropriate United Nations specialized agencies, and international or national organizations within the context of paragraphs 22 to 31 of the Sub-Committee's report. The Committee welcomed the recommendation that the Secretary-General be requested to prepare a comprehensive assessment of the requirements concerning meritorious specific requests for practical space applications, e.g., survey missions, panel meetings and fellowships, which may fall outside the normal purview of the specialized agencies or that of UNDP and the way of meeting them, including the magnitude of the administrative, technical and financial involvement; as well as the recommendation that the Secretary-General initiate a preliminary consultation with FAO and other United Nations bodies concerned on the advisability of convening in 1971, or as soon thereafter as would be practical, a panel to discuss the applicability of space and other remote sensing techniques to the management of food resources and to report his findings and suggestions at the Sub-Committee's next session.

16. With regard to the Sub-Committee's recommendation on its future work, the proposal was made that the Committee should request the Sub-Committee, while continuing its consideration of the subjects before it and already suggested for its agenda, to submit to the Committee at its next session a list of subjects which

were, in the Sub-Committee's opinion, ripe for fruitful discussion and which would increase the Sub-Committee's contribution to the development of peaceful international co-operation in space matters, having particular regard for the needs of developing countries.

17. The Committee also noted with appreciation the addendum to the report concerning the programmes and activities of various organizations of the United Nations family related to the promotion of space applications (A/AC.105/55/Add.1-3), together with the reports of WMO 1/ and ITU 2/ on the application of space technology to meteorology and telecommunications.

18. The Committee further noted with appreciation the participation in the work of the Committee, its Sub-Committees and the Working Group on Direct Broadcast Satellites, of the specialized agencies and other competent international bodies. It welcomed the contributions, both by way of statements and documents, which representatives of ITU, FAO, UNESCO, WHO, WMO and COSPAR had made during 1969 to assist the work of the Committee.

#### Report of the Legal Sub-Committee

19. The Committee took note of the report of the Legal Sub-Committee on the work of its eighth session, held from 9 June to 4 July 1969 (see annex III).

20. The Committee expressed its regret that the Legal Sub-Committee at that session was unable to present an agreed draft convention on liability for damage caused by objects launched into outer space. A number of speakers further gave their views on such unresolved issues as the settlement of claims, the law applicable to the determination of compensation for damage, the role of international organizations and their constituent members under the convention, ceiling on liability and nuclear damage.

21. After discussion, the Committee decided to hold further consultations and negotiations on the liability convention (see paragraph 9 above). On the proposal of the Italian delegation, the Committee agreed that, in order to assist the negotiations, the Secretariat should provide the necessary documentation.

22. With regard to questions relative to the definition of outer space and to the utilization of outer space and celestial bodies, including the various implications of space communications, the Committee considered paragraphs 13 to 15 of the Legal Sub-Committee's report. The Committee decided to endorse the two resolutions contained in paragraph 13 of that report. According to the first resolution, the Committee would invite the Scientific and Technical Sub-Committee to study as soon as possible the technical aspects of the registration of objects

1/ Annual Report of the World Meteorological Organization, 1968 (Geneva, 1969) (WMO-No.241.RP.80). Transmitted to members of the Economic and Social Council by document E/4658.

2/ Report to the Economic and Social Council on the Activities of the International Telecommunication Union in 1968 (Geneva, 1969). Transmitted to members of the Economic and Social Council by document E/4691.

launched into space, for the exploration and use of outer space, obtaining if considered appropriate, suitable information from the United Nations specialized agencies, such as ITU, IMCO and ICAO, on the registration of ships, aircraft, etc., as well as from COSPAR and other competent international organizations concerned with the registration of such launchings. In the second resolution, the Committee would invite the Secretary-General to prepare: (a) a background paper for the next session of the Legal Sub-Committee on the question of the definition and/or the delimitation of outer space, taking into account both the data provided by the study carried out by the Legal Sub-Committee and the Scientific and Technical Sub-Committee, and also the contributions, studies, data and documents which may be obtained from the specialized agencies concerned and such other international and national organizations and institutions which are interested in the subject as may be determined by the Committee on the Peaceful Uses of Outer Space; (b) a background paper on the results of the studies to be furnished by the specialized agencies and IAEA in accordance with General Assembly resolution 2453 B (XXIII). 3/

23. With respect to the future work of the Legal Sub-Committee, the delegation of Belgium suggested that a system of priorities be established and made a formal proposal on a possible list of such priorities at the 63rd meeting of the Committee. This proposal was supported by several delegations. Because there was not sufficient time to consider the Belgian suggestion, the Committee decided to defer the discussion of this matter to its next session in 1970, to be held before the ninth session of the Legal Sub-Committee.

3/ The relevant provisions of resolution 2453 B (XXIII) read:

"The General Assembly,

"...

"2. Requests the Committee on the Peaceful Uses of Outer Space:

"...

"(b) To continue to study questions relative to the definition of outer space and the utilization of outer space and celestial bodies, including various implications of space communications, as well as those comments which may be brought to the attention of the Committee by specialized agencies and the International Atomic Energy Agency as a result of their examination of problems that have arisen or that may arise from the use of outer space in the fields within their competence;

"...

"11. Requests the specialized agencies and the International Atomic Energy Agency to examine the particular problems which arise or which may arise from the use of outer space in the fields within their competence and which should in their opinion be brought to the attention of the Committee on the Peaceful Uses of Outer Space, and to report thereon to the Committee for its consideration, as indicated in paragraph 2 (b) of the present resolution;"

24. The Committee took note with appreciation of the report of the Working Group on Direct Broadcast Satellites on the work of its first and second sessions (A/AC.105/51 and A/AC.105/66 and Corr.1 and 2) and endorsed the Working Group's conclusions. The text of the conclusions is reproduced in annex IV.

25. The Committee particularly noted the contribution made by ITU to the Working Group on Direct Broadcast Satellites, which recognized its competence in the important matters relating to direct broadcast satellites that will be discussed at the Plenary Assembly of the International Radio Consultative Committee (CCIR) in January 1970 and the Second World Administrative Radio Conference on Space Communication to be convened in June 1971. The Conference will consider new frequency allocations for all the space services and will take the necessary action on the co-ordinated frequency planning requirements. It commended also the valuable contribution made by UNESCO to the work of the Working Group on Direct Broadcast Satellites, and noted that UNESCO intends to continue its examination of the requirements of education, science and culture in relation to direct broadcast satellites at a meeting of governmental experts in the space communications field in December 1969. The Committee urged all States Members of the United Nations and members of the specialized agencies to give full attention to these scheduled meetings in order to ensure their success in the interests of all.

26. The Committee noted that in the light of the reports of the Working Group on Direct Broadcast Satellites, international action in this field should be undertaken as a coherent whole and not as the result of individual actions by different organizations and States.

27. The Committee recommended that the Secretary-General ensure the distribution of the Working Group's two reports to all Members of the United Nations, as well as to the international organizations referred to in the reports, with a request that they review the reports and submit their comments at the earliest opportunity. Attention should be paid to the relevance of direct broadcasting from satellites to developing countries which have not yet acquired an extensive telecommunications infrastructure using conventional technology, particularly within the context of preparations for the Second United Nations Development Decade.

28. With regard to the convening of a further session of the Working Group and bearing in mind that the Working Group is an *ad hoc* body, the Committee decided to recommend to the General Assembly: (a) that it authorize the Committee on the Peaceful Uses of Outer Space, at its first session in 1970, to consider in the light of the discussions of the two reports of the Working Group at the twenty-fourth session of the General Assembly and of such comments of Member States and of the specialized agencies concerned that may have been received by then whether a further session of the Working Group would prove desirable; and (b) that it authorize the Committee on the Peaceful Uses of Outer Space to set a place and date for such a possible further session of the Working Group if the Committee should decide after consideration that such a further session is desirable.

29. In conformity with the provisions of paragraphs 1 and 2 of General Assembly resolution 1721 B (XVI), the Committee has continued to receive information from launching States concerning objects launched into orbit. Information has been furnished by France, on behalf of the States members of the European Space Research Organization, by the Union of Soviet Socialist Republics and by the United States of America. The information received since the Committee's last report has been placed in the public registry maintained by the Secretary-General and has been circulated in documents A/AC.105/INF.196-209.

## ANNEX I

### Opening statement by the Chairman at the 61st meeting of the Committee on 8 September 1969

It has become a pleasant tradition for the Committee to review, at the outset of its annual meeting, the progress achieved over the past year in the exploration and peaceful uses of outer space. We have thus been able each year to take note of further impressive achievements in the science and technology relating to the exploration of outer space.

Never before, however, have we been able to look back at the past year with such pride, with such excitement.

The successful completion by the United States of America of the Apollo 11 mission, the first landing of man on another celestial body and the perfect return of the astronauts to Earth, is indeed a milestone not only in the exploration of outer space, to which the work of this Committee is devoted, but, beyond that, a milestone in the history of man itself.

In the six weeks that have passed since that historic event, tribute has been paid to this outstanding achievement, and to the men who made it possible, by the leading personalities of all nations, and by the spontaneous and unparalleled enthusiasm of hundreds of millions of ordinary people all over the world who were able, through satellite TV broadcasts - which by the way is another achievement of outer space technology - to take part in this great venture of man beyond the limits of his own planet.

To all those let me now add, on behalf of the United Nations Committee on the Peaceful Uses of Outer Space, the expression of our admiration and appreciation. I wish to convey our congratulations not only to the three astronauts whose names will be inscribed for ever in the hall of fame of the exploration of outer space. I wish to say these words also to all the technicians and engineers who have made this mission possible, and to all scientists and researchers who, in so many countries and over so many years, have laid the intellectual groundwork for man's entry into outer space.

May I add to this a few personal remarks. Through the kind invitation of the United States space programme authorities, I was able to be present at the Mission Control Center in Houston during the Apollo 11 mission. To anyone who was in that fortunate position it will remain an unforgettable experience. And part of that experience will be the realization of how many thousands of unknown technicians, scientists and workers were involved in the Apollo 11 mission and made its success possible.

In saying these words of praise and congratulation, I wish to pay a tribute also to all the astronauts who in previous missions had prepared the final operation. I wish to pay a very special tribute to the memory of all astronauts, American and Soviet, who during the past years in the great venture of man into outer space made the ultimate sacrifice.

The first men who landed on the moon came, as recorded on the plaque they left behind, "in peace for all mankind". In those words they underlined the two aspects which have also guided the work of this Committee since its inception: that man's conquest of outer space should be the joint venture of all nations and for the benefit of all mankind, and that it should be for peaceful purposes. The historic event of 21 July 1969 will thus, I am sure, give new impetus to the work of our Committee.

It is understandable that in reviewing the past year's activities, our primary attention is focused on the first lunar landing. That was, however, by no means the only achievement in the exploration of outer space during 1969. The Apollo 11 mission itself was, of course, preceded by a number of manned space flights.

On 3 March the United States launched Apollo 9, the first manned flight of the Apollo space craft lunar module, followed on 18 May by Apollo 10, the first flight of the complete Apollo space craft in orbit around the moon. During that mission the space craft's crew accomplished in sequence all the necessary steps leading to a landing on the surface of the moon, with the exception of the actual touch-down.

The Soviet Union on 14 January launched Soyuz 4 and on 15 January, Soyuz 5, a group space flight which tested pre-conditions for carrying out such operations in outer space as the rendezvous and docking of two space craft and thus the construction of an experimental space station, and the rotation of its crews. Important scientific, technical and medical-biological research was also accomplished by that mission.

As early as 5 and 10 January the Soviet Union launched two unmanned space craft, designated Venus 5 and 6. Those launchings continued the series of earlier Venus probes designed for research into physical phenomena both in transit and on the surface of the planet. With those launchings, new information on local temperatures, temperature patterns, and pressure distribution was obtained. Prior to entry into the planet's atmosphere, each probe ejected an instrumented capsule, which descended by means of a parachute system, transmitting information on temperature and pressure distribution, as well as the chemical composition of the planet's atmosphere.

The United States on 25 February launched Mariner 6, and on 27 March, Mariner 7, on two missions towards Mars. Both unmanned probes were equipped to carry out measurements on the atmospheric pressure and temperature surrounding Mars, and transmitted television pictures to Earth covering different areas of the planet's surface.

Further space craft were launched by the Soviet Union: on 15 July, Luna 15, in a mission designed to investigate the lunar surface with transmissions of moon pictures, and to collect additional technical and physical data for carrying out circumlunar flights, followed on 8 August by Zond 7, photographing the moon's surface and checking improved on-board systems necessary for missions to the moon.

We should also take note of an important number of launchings of technological satellites, such as that of Meteor by the Soviet Union on 26 March, of Molniya 1 by the Soviet Union on 11 April, and of Nimbus 3 by the United States on 14 April;

of several scientific satellites; and of internationally launched satellites, such as, on 30 January, Isis 1 in a programme conducted jointly by Canada and the United States.

It is indeed another impressive record of achievement by the two great space Powers, the Soviet Union and the United States.

These programmes of space exploration were complemented by continued scientific research and studies of the application of space technology in an ever-increasing number of nations.

I wish to take this opportunity to extend to all nations engaged individually or collectively in the exploration of outer space or in the science and research of outer space and their application my very sincere congratulations on the achievements during the past year.

Progress in the technology and exploration of outer space thus proceeded in a spectacular way. During the same time, our Committee and Sub-Committees proceeded with the work entrusted to them by the General Assembly. As in the past, this work was focused on two aspects: on the one hand, the scientific and technological questions and the application of space technology to our daily life; and, on the other hand, the continued effort to elaborate legal rules for the exploration of outer space. Particular attention was given during the past year to the problem of direct broadcast satellites and all its implications.

At its present session the Committee will have before it three reports: the report of the Scientific and Technical Sub-Committee (A/AC.105/55 and Corr.1), the report of the Legal Sub-Committee (A/AC.105/58) and the report of the Working Group on Direct Broadcast Satellites (A/AC.105/51 and A/AC.105/66 and Corr.1 and 2). These reports contain a considerable number of recommendations and observations, and the Committee will have to make an appropriate report concerning all these questions to the General Assembly at its forthcoming session. Delegations will have the opportunity during our present session to comment on all aspects of the reports by the Sub-Committees and the Working Group. It is not for the Chairman to go into the substance of the reports before us, but I wish to take this opportunity to thank the Sub-Committee and the Working Group and their excellent respective Chairmen for the work they have achieved during the past year.

If the Committee agrees, and if there are no observations on the agenda, we shall consider the agenda before us adopted.

## ANNEX II

### Recommendations of the Scientific and Technical Sub-Committee at its sixth session

(Excerpts from the report of the Sub-Committee on the work  
of its sixth session)

#### A. Exchange of information

15. The Sub-Committee had before it two reports (A/AC.105/C.1/L.41 and Add.1-7 and A/AC.105/C.1/L.46 and Corr.1). The latter was issued as Background Paper 14 at the United Nations Conference on the Exploration and Peaceful Uses of Outer Space in Vienna in August 1968 and was made available to the Sub-Committee for its information.

16. The Sub-Committee noted the statements by certain delegations of the need to up-date the information contained in the two reports and requested the Secretariat to bring them up to date annually, and distribute the reports immediately after completion.

17. The Sub-Committee noted the relative lack of utilization of documentation already available in the library of the Outer Space Affairs Division and urged delegations to make greater use of this facility.

#### B. Encouragement of international programmes

##### 1. Report of the Working Group on Direct Broadcast Satellites

18. The Sub-Committee noted with appreciation the report of the first session of the Working Group on Direct Broadcast Satellites, which was established by General Assembly resolution 2453 (XXIII) to study and report on the technical feasibility of communication by direct broadcast from satellites and the current and foreseeable developments in this field, including comparative user costs and other economic considerations, as well as the implications of such developments in the social, cultural, legal and other areas. This first session was held at United Nations Headquarters between 11 February and 20 February 1969 and concentrated on technical feasibility aspects.

19. The Sub-Committee also took note of the documents submitted to it concerning direct broadcast satellites prepared by the delegations of Australia, Canada, France, Sweden, Italy, the United States of America and ITU, which were previously presented to the Working Group.

20. The Sub-Committee appreciates the special arrangements made to provide it with this report so soon after the meeting of the Working Group.

21. The Sub-Committee considered in general the findings of the Working Group and expressed the hope that it would be kept informed of the developments in this field, in particular those mentioned under paragraphs 10 and 11 of the Working Group's report.

## 2. Promotion of the applications of space technology

22. The Sub-Committee gave due consideration to paragraphs 4 and 5 of General Assembly resolution 2453 A (XXIII), and examined all aspects of proposals by India and Sierra Leone to promote the applications of space technology with particular reference to nations not advanced in space research, including developing countries.

23. The Sub-Committee recognized that the Secretary-General, in his note to the United Nations Conference on the Exploration and Peaceful Uses of Outer Space in Vienna in August 1968, called for greater levels of co-operation to harness the practical benefits that can accrue to man from the vast scientific and technological advances made through space exploration, and recognized further that the Secretary-General, citing the many reports from the specialized agencies to that Conference, affirmed that "the United Nations and its family of agencies stand ready to play their part in this effort".

(a) The Sub-Committee agreed it would be highly desirable to survey capabilities of the United Nations and its specialized agencies in this aspect on a continuing basis. As a preliminary step in this direction and with the co-operation of representatives of the specialized agencies who were participating, as well as of UNDP and various elements within the United Nations Secretariat itself, the Sub-Committee requested that information be assembled regarding past, present and planned activities by these organizations which relates to their efforts to assist in the promotion of the application of space technology;

(b) The Sub-Committee recommends that the Secretary-General, in co-operation with the specialized agencies, IAEA and UNDP, provide the information described in paragraph (a) above, and that this information be issued as an addendum to this report. The addendum is to be published before the meeting of the Committee on the Peaceful Uses of Outer Space in September 1969;

(c) The Sub-Committee recommends that all specialized agencies and relevant offices within the Secretariat and UNDP should be asked to keep this information up to date at least annually and to assist in making it available for the benefit of nations not advanced in space research, in particular developing countries, which are interested in being better informed as to applications of space technology which may be of pertinence to their needs.

24. Having reviewed the Secretariat paper, "The implementation of the recommendations and suggestions in the peaceful uses of outer space", and bearing in mind the conclusions of that working paper which shed light on the capabilities and limitations of the Secretariat as presently constituted, and having in mind also the need to increase more energetically the flow of information and assistance of potential value to non-space Powers, the Sub-Committee recommends the early appointment by the Secretary-General to the Outer Space Affairs Division of a qualified individual whose full-time task would be to promote the practical applications of space technology. The Sub-Committee requests the Secretary-General, with the assistance of this individual, to report to the Scientific and Technical Sub-Committee on these activities, specifically:

(a) He would maintain liaison with all components of the United Nations family in order to keep abreast of all efforts as well as opportunities for information and assistance in this field;

(b) He would serve as a point of contact for all Member States seeking information and assistance with regard to pertinent United Nations or other proposed programmes.

The Sub-Committee believes that this individual, whose appointment should be on a short-term basis (in order to assure current expertise in the position) and who should be of considerable experience in the practical applications of space technology, should be closely associated with the Office of the Secretary-General in carrying out his liaison responsibilities, both as regards various elements within the Secretariat itself, including UNDP, and the specialized agencies. This individual should also be available to assist in the deliberations of the Advisory Committee on the Application of Science and Technology to Development and the United Nations Scientific Advisory Committee. In responding to requests for information and other inquiries, the Sub-Committee believes this individual should, whenever possible, bring the requesting Member State into direct contact with the United Nations component or international or national organizations qualified to fulfil the requestor's specific needs with special reference to information, surveys, fellowships and other assistance. In addition to information supplied by various elements in the United Nations family of agencies, he would have at hand the "Review of national and co-operative international space activities" (A/AC.105/L.46) which, it is hoped, Member States will continue to keep up to date, as well as other available literature.

25. In order to ensure that nations not advanced in space research, including particularly the developing countries, take full advantage of various applications of space technology which may have potential value for their needs, and in order to systematize a flow of information between the international community and those elements within the Governments of Member States who are best able to evaluate the pertinence of the information to the Governments' needs and progress, the Sub-Committee suggests that Member States concerned with developments in this field give consideration to designating a specific office or individual in each such Government as a point of contact for communications regarding the promotion of applications of space technology and thereafter inform the Secretary-General of such designation.

26. Recognizing that nations not advanced in space research might find it difficult to initiate useful activities, the Sub-Committee decided that henceforth it would itself promote more energetically the applications of space technology and in future meetings would consider various concrete initiatives including, for example, panel meetings in collaboration with appropriate United Nations specialized agencies, international and/or national organizations. To facilitate such panel meetings and maximize participation in them by Member States, especially those not advanced in space research, the Sub-Committee intends to regard those offices (and/or experts arranged for by them) which are designated pursuant to paragraph 25, as potential participants in panels which the Sub-Committee might from time to time organize regionally or collectively to consider specific topics of space applications. It is the Sub-Committee's hope that normally such activities as it or the Committee on the Peaceful Uses of Outer Space might approve on an ad hoc basis would be of limited expense and could be funded by the agencies involved without the need in each instance of seeking formal approval by the General Assembly at its annual sessions. The Sub-Committee urges Member States to take advantage of the panel activities which are contemplated.

27. Without wishing to inject itself into the normal process by which UNDP screens various requests for survey missions, panel meetings or fellowships, the Sub-Committee wishes to encourage UNDP to assist through these and other modalities which might be useful for the promotion of the applications of space technology with particular reference to nations not advanced in space research, including developing countries, and expresses its willingness to assist in this process. In view of the possibility that meritorious specific requests for assistance in connexion with practical space applications, e.g., survey missions, panel meetings or fellowships, may fall outside the normal purview of the specialized agencies or that UNDP may find itself unable to approve such requests, the Sub-Committee, recognizing the need to provide for such possibilities, requests the Secretary-General with the assistance of the individual described in paragraph 24 to prepare a comprehensive assessment of the requirements and the ways of meeting them, including the magnitude of the administrative, technical and financial involvement.

28. Finally, the Sub-Committee believes that the above recommendations should be implemented on an experimental basis and that the precise machinery which will most efficiently promote the applications of space technology can only evolve on the basis of actual experience in meeting the needs of interested nations.

29. The Sub-Committee noted the importance of implementing the suggested measures for the encouragement of space application for the benefit of mankind; and, in accordance with the procedures suggested in paragraph 26 of the report of this Sub-Committee, expressed the belief that the problems of budgeting and planning the global resources for the people of the world might draw some benefits from the utilization of space and other remote sensing techniques.

30. Accordingly, the Sub-Committee requests that the Secretary-General, with the assistance of the individual whose full-time task would be to promote the practical applications of space technology within the Outer Space Affairs Division, initiate a preliminary consultation with FAO and other United Nations bodies concerned on the advisability of convening in 1971, or as soon thereafter as would be practical, a panel for the discussion on the applicability of space and other remote sensing techniques to the management of food resources and to report his findings and suggestions at the next session of this Sub-Committee.

31. The Sub-Committee noted with appreciation the work of the specialized agencies, UNDP and COSPAR as reported to the Sub-Committee by their representatives and requested them to keep the Sub-Committee informed of the developments in this area within their organizations.

#### C. International sounding rocket launching facilities

32. The Sub-Committee noted with complete satisfaction the work being carried out at the Thumba Equatorial Rocket Launching Station (TERLS) in India and recommended that the United Nations continue to grant sponsorship to TERLS.

33. The Sub-Committee took note of the work already accomplished by the Government of Argentina in relation to the use of sounding rocket facilities for international co-operation and training in the peaceful scientific exploration of outer space as reported by Argentina to the Sub-Committee.

34. The Sub-Committee took note of a statement made by the representative of Argentina to the effect that the Secretary-General of the United Nations has been notified that the Mar Chiquita station near Mar del Plata will be in an operative condition at the end of September 1969.

35. The Sub-Committee expressed the hope that in accordance with paragraph 8 of General Assembly resolution 2453 B (XXIII) of 20 December 1968, the Secretary-General, in consultation with the Chairman of the Committee on the Peaceful Uses of Outer Space, would appoint a small group of scientists, drawn from States which are members of that Committee and are familiar with space research and facilities, to visit the Mar Chiquita station in Argentina at a suitable time in order to report to the Committee on its eligibility for United Nations sponsorship, in accordance with the basic principles endorsed by the General Assembly in 1962.

#### D. Education and training

36. The Sub-Committee noted that resolution 2453 B (XXIII), unanimously adopted by the General Assembly on 20 December 1968, welcomed the request made by the Committee on the Peaceful Uses of Outer Space to the Scientific and Technical Sub-Committee to take up at its 1969 session the "serious consideration of suggestions and views regarding education and training in the field of exploration and peaceful uses of outer space that were expressed in the General Assembly and in the Committee".

37. The Sub-Committee had before it a paper prepared by the Secretariat on "the suggestions and views expressed in the Committee on the Peaceful Uses of Outer Space and the General Assembly regarding education and training in the field of the exploration and peaceful uses of outer space" (Conference Room Paper No. 1).

38. In its discussion of the matters set forth under section II B of this report "Promotion of the applications of space technology", the Sub-Committee kept in mind related educational and training needs, particularly those associated with increasing the awareness of potential applications. It considers that the process of increasing the awareness is a learning or educational process in a broad sense, and this concept is reflected in the recommendations of section II B.

39. The Sub-Committee reaffirms the recommendations made by it in paragraph 33 of the report of its fourth session in 1966 (A/AC.105/31) under the following headings:

(1) Popular understanding of the purposes and potentialities of space activities, (2) Secondary school space education, (3) University-level education, (4) Post-university education, (5) Training in space science and technology.

40. The Sub-Committee noted with satisfaction and appreciation that the Experimental Satellite Communications Earth Station at Ahmedabad, India, is being utilized for training and research both by Indian and other nationals (A/AC.105/L.46).

41. The Sub-Committee also noted that the Inter-American Committee on Space Research, in co-operation with the Argentine National Commission on Space Research, continued in 1968 the annual session of the Latin American course in Space Research.

42. The Sub-Committee took note with appreciation of the education and training programmes of the specialized agencies as reported to the Sub-Committee. It recognized the particular competence of UNESCO in this area. It also noted a statement made by the representative of the International Labour Organisation (ILO) concerning the International Center for Advanced Technical Training in Turin, Italy, and the willingness of the ILO to consider the establishment of programmes for education and training in space science and technology if member States of the ILO expressed their interest in such programmes.

43. The Sub-Committee expresses its hope that UNESCO would include in its biannual publication Study Abroad a chapter on fellowships and training courses in space research and space technology.

44. The Sub-Committee calls to the attention of all Member States the information currently available in the United Nations publication, International Directory of Facilities for Education and Training in Basic Subjects related to the Peaceful Uses of Outer Space, a/ and reiterates its invitation to Member States desirous of having their nationals take advantage of training to make their specific interests and needs known to the Secretary-General.

45. The Sub-Committee recommends that the Secretary-General, making full use of the facilities at his disposal, and in the manner he deems most appropriate, provide prompt and full implementation of the tasks entrusted to the Secretariat with reference to the dissemination of information concerning the opportunities available to the Member States in the field of education and training.

#### E. Future work of the Sub-Committee

46. The Sub-Committee considered the increasing number of countries initiating space programmes or wishing to do so, and expressed the desire that the activities of the United Nations should keep pace with the rapid developments of space science and technology, as well as the wish to increase the contribution of the Sub-Committee to the development of international peaceful co-operation in these activities, having particular regard for the needs of developing countries.

47. Accordingly the Sub-Committee agreed that henceforth all members of this Sub-Committee wishing to do so should send to the Secretariat, at least four months in advance of the sessions of this Sub-Committee, working papers on topics they believe would be of wide interest and importance for the Sub-Committee.

48. The Sub-Committee invited the Secretariat to add all such topics to the provisional agenda, thereby increasing opportunities for productive and enlightening discussions in the Sub-Committee.

49. It also requested the Secretariat to circulate such documents and the provisional agenda to members of this Sub-Committee at least two months in advance of each session, so that the new material can be evaluated and suitable national experts can be made available for participation in each session.

50. The Sub-Committee requested the Committee on the Peaceful Uses of Outer Space at its next session in September, and on future similar occasions when it decides upon the schedule of meetings for its Sub-Committees, to take into account the recommendations contained in paragraphs 47 and 49.

a/ United Nations publication, Sales No.: E.68.I.4.

#### ANNEX III

#### Report of the Legal Sub-Committee on the work of its eighth session\*

(9 June-4 July 1969)

1. The Legal Sub-Committee opened its eighth session at the United Nations Office at Geneva on 9 June 1969 under the chairmanship of Mr. Eugeniusz Wyzner (Poland).

2. In his opening statement, the Chairman observed that it was primarily through the efforts and co-operation of the members of the Sub-Committee that the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, and the Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space were negotiated and concluded. The Chairman reminded the Sub-Committee that the immediate task before it at this session was to complete the preparation of the draft agreement on liability for damage caused by objects launched into outer space. The urgency of this task was made clear by the General Assembly in its resolution 2453 (XXIII) adopted at its twenty-third session, and also by the numerous informal consultations among various delegations, which were held in New York, November-December 1968, and in New Delhi in March 1969, b/ since the last session of the Sub-Committee.

#### Adoption of the agenda

3. On the suggestion of the Chairman, the Sub-Committee adopted the following provisional agenda for the session (A/AC.105/C.2/L.52):

1. Statement by the Chairman.
2. Draft agreement on liability for damage caused by objects launched into outer space.
3. Study of questions relative to:
  - (a) The definition of outer space;
  - (b) The utilization of outer space and celestial bodies, including the various implications of space communications.

\* Previously issued under the symbol A/AC.105/58.

b/ The delegations participating in the informal consultations were: Belgium, Hungary, India, the USSR and the United States.

#### Decision on summary records

4. The Chairman drew attention to General Assembly resolution 2478 (XXIII), in accordance with which the Sub-Committee had to decide whether or not to dispense with summary records. After discussion in which many members participated, the Sub-Committee decided that summary records of its meetings should be maintained.

#### Organization of work

5. At its opening meeting, the Sub-Committee decided that it should first consider item 3 of its agenda, devoting three days to that item on the understanding that decisions on any proposals thereunder might be postponed to a later date if the Sub-Committee so desired. The remainder of the session was to be devoted to agenda item 2. At its 119th meeting, the Sub-Committee considered the organization of work on agenda item 2 and decided that the five questions considered at the informal consultations in New Delhi (international organizations, applicable law, settlement of claims, ceiling on liability and nuclear damage) should be discussed in the Sub-Committee itself. Other questions should be considered in a Working Group of the Whole. The Sub-Committee accordingly established a Working Group for this purpose. Points found to be connected with the questions considered at New Delhi would not be discussed in the Working Group but were to be referred by the Working Group to the Sub-Committee for decision in principle. It was also decided that the Sub-Committee should generally meet in morning sessions and the sessions of the Working Group should be in the afternoon. The Working Group of the Whole held a total of twelve meetings.

6. The Sub-Committee held a total of twenty-one meetings. The views expressed in the Sub-Committee are summarized in documents A/AC.105/C.2/SR.111-131.

7. The Sub-Committee concluded its work on 4 July 1969 by adopting the present report unanimously. A list of the representatives of States members of the Sub-Committee attending the session, of the observers for specialized agencies and of the secretariat of the Sub-Committee, is annexed to the present report (see A/AC.105/58, annex VI).

#### I. STUDY OF QUESTIONS RELATIVE TO (a) THE DEFINITION OF OUTER SPACE; (b) THE UTILIZATION OF OUTER SPACE AND CELESTIAL BODIES, INCLUDING THE VARIOUS IMPLICATIONS OF SPACE COMMUNICATIONS (agenda item 3)

8. The Sub-Committee considered item 3 of its agenda, namely, the study of questions relative to (a) the definition of outer space; and (b) the utilization of outer space and celestial bodies, including the various implications of space communications, at its 112th to 115th meetings and thereafter at the 129th meeting.

9. At the opening of the 112th meeting, the Chairman referred to the conclusions of the Scientific and Technical Sub-Committee, reached at its 1967 session, to the effect that it was not possible at that time to identify scientific or technical criteria which would permit a precise and lasting definition of outer space; that a definition of outer space, on whatever basis, was likely to have important implications for the operational aspects of space research and exploration; and

that it would continue its consideration of this matter at future sessions.<sup>c/</sup> The Chairman also referred to two resolutions pertaining to the utilization of outer space which the Legal Sub-Committee adopted at its seventh session in 1963, and to the relevant proposals submitted to the Sub-Committee at that session (see A/AC.105/45, paras. 14-16). He identified those proposals as: a proposal by France relating to a draft convention on registration of objects launched into space for the exploration and use of outer space (A/AC.105/C.2/L.45); and a proposal by Czechoslovakia concerning the question of the utility of elaborating the legal principles on which the creation and functioning of space communications should be based (A/AC.105/C.2/L.46).

10. In the course of the discussion of agenda item 3, which dealt with both the problem of defining outer space and that of the utilization of outer space, the following proposals were submitted: a proposal by Poland concerning the elaboration of rules relating to man's activities on the surface of the moon and other celestial bodies (A/AC.105/C.2/L.53); a proposal by Argentina concerning future study by the Sub-Committee of the question of the legal status of substances, resources and products originating from the moon (A/AC.105/C.2/L.54); a proposal by Canada that the Scientific and Technical Sub-Committee be invited to study as soon as possible the technical aspects of the registration of objects launched into space for the exploration and use of outer space (A/AC.105/C.2/L.55/Rev.1); a proposal by Belgium inviting the Secretary-General to prepare a background paper for the next session of the Legal Sub-Committee on the question of the definition and/or delimitation of outer space (A/AC.105/C.2/L.56); a proposal by Czechoslovakia for a reference in the report to the idea that in the future the study of the usefulness and feasibility of establishing an intergovernmental international agency for outer space affairs should be undertaken (A/AC.105/C.2/L.57 and Corr.1); and a proposal by France concerning the elaboration of certain background papers relating to the definition and utilization of outer space to be prepared by the Secretariat, as well as the inclusion of items relating to the registration of objects launched into space for the purpose of the exploration and use of outer space, the definition of outer space, and the use of outer space, in the agenda of the next session of the Sub-Committee (A/AC.105/C.2/L.64). The above-mentioned proposals by Poland and Argentina were later combined into a single proposal and issued as document A/AC.105/C.2/L.66. Still later, Argentina, France and Poland jointly submitted a proposal relating to the same subject (A/AC.105/C.2/L.69).

11. The aforementioned proposals are reproduced in the present report (appendix I).

12. At the request of the Sub-Committee, an unofficial list of topics suggested by some members of the Sub-Committee at the present and past sessions was prepared by the Secretariat for information purposes and is appended to the present report (appendix V).

13. The Sub-Committee adopted the following resolutions:

<sup>c/</sup> See Official Records of the General Assembly, Twenty-second Session, Annexes, agenda item 32, document A/6804, annex II, para. 36.

A.

The Legal Sub-Committee

Recommends to the Committee on the Peaceful Uses of Outer Space that the Scientific and Technical Sub-Committee be invited to study as soon as possible the technical aspects of the registration of objects launched into space, for the exploration and use of outer space, obtaining if considered appropriate, suitable information from the United Nations specialized agencies, such as the International Telecommunication Union, the Inter-Governmental Maritime Consultative Organization and the International Civil Aviation Organization, on the registration of ships, aircraft, etc., as well as from the Committee on Space Research of the International Council of Scientific Unions and other competent international organizations concerned with the registration of such launchings.

B.

The Legal Sub-Committee,

Recalling resolution 2453 B (XXIII) of 20 December 1968 and in particular paragraph 2 (b),

Having in mind article II 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,

Taking cognizance of the results of the study of the question relative to the definition of outer space by the Scientific and Technical Sub-Committee at its fifth and sixth sessions,

Desiring to continue its studies of the definition and/or the delimitation of outer space,

Requests the Committee on the Peaceful Uses of Outer Space to invite the Secretary-General to prepare:

(a) A background paper for the next session of the Legal Sub-Committee on the question of the definition and/or the delimitation of outer space, taking into account both the data provided by the study carried out by the Legal Sub-Committee and the Scientific and Technical Sub-Committee, and also the contributions, studies, data and documents which may be obtained from the specialized agencies concerned and such other international and national organizations and institutions which are interested in the subject as may be determined by the Committee on the Peaceful Uses of Outer Space;

(b) A background paper on the results of the studies to be furnished by the specialized agencies and the International Atomic Energy Agency in accordance with General Assembly resolution 2453 B (XXIII).

14. It was agreed that under agenda item 3 (b), entitled "Study of questions relative to the utilization of outer space and celestial bodies, including the various implications of space communications", the Sub-Committee could examine the following subjects, among others:

(a) The question of the registration of objects launched into space for the exploration or use of outer space, including the draft convention proposed on that subject;

(b) Questions relating to the legal rules which should govern man's activities on the moon and other celestial bodies, including the legal régime governing substances coming from the moon and from other celestial bodies.

15. During the general exchange of views in connexion with agenda item 3, the delegations of Czechoslovakia and the United Arab Republic expressed the view that in the future the study of the usefulness and feasibility of establishing an intergovernmental international agency for outer space affairs should be undertaken. The delegations of the USSR and Czechoslovakia expressed the view that under agenda item 3 the question of "the utility of the elaboration of the legal principles on which the creation and functioning of space communications should be based", proposed by Czechoslovakia, should be considered. In connexion with sub-item (b) of agenda item 3, the delegation of Sweden and certain other delegations observed that under this item the Sub-Committee could consider also the legal aspects of questions relating to direct broadcasting from satellites.

16. At the request of the delegation of Canada, the Sub-Committee decided to reproduce the statement made by the observer for ITU as an appendix to the present report (appendix III). At the request of the delegation of Czechoslovakia, it was also decided to reproduce a statement made by the Chief of the Outer Space Affairs Division concerning registration with the United Nations of objects launched into outer space (appendix IV).

II. LIABILITY FOR DAMAGE CAUSED BY THE LAUNCHING OF OBJECTS  
INTO OUTER SPACE

17. The Sub-Committee had before it five draft conventions concerning liability for damage caused by the launching of objects into outer space: a draft convention by Belgium (A/AC.105/C.2/L.7/Rev.3); a draft convention by the United States (A/AC.105/C.2/L.19) as amended at the current session (A/AC.105/C.2/L.58); a draft convention by Hungary (A/AC.105/C.2/L.10/Rev.1 and Corr.1 and A/AC.105/C.2/L.24); a revised draft convention by India (A/AC.105/C.2/L.32/Rev.1 and Corr.1); and a draft convention by Italy as revised at the current session (A/AC.105/C.2/L.40/Rev.1). At the 123th meeting of the Sub-Committee, the delegation of India submitted a further revised draft convention (A/AC.105/C.2/L.32/Rev.2).

18. The provisions of the draft conventions by Belgium, the United States and Hungary were previously issued by the Secretariat in the form of a comparative table (A/AC.105/C.2/W.2/Rev.4). The provisions of the draft conventions by India (A/AC.105/C.2/L.32/Rev.1 and Corr.1) and Italy, together with the texts, principles and points agreed upon at the sixth and seventh sessions of the Sub-Committee, were also prepared by the Secretariat in the form of a comparative table and issued as document A/AC.105/C.2/W.2/Rev.4/Add.4.

19. In addition, the following proposals were submitted by members of the Sub-Committee:

(a) With respect to international organizations, a proposal was submitted by Belgium, France, Italy, Sweden and the United Kingdom (A/AC.105/C.2/L.60 and Add.1), and a working paper by Bulgaria and the USSR (A/AC.105/C.2/L.67 and Add.1);

(b) In regard to the question of measure of damages (applicable law), the following proposals were submitted: a proposal by Argentina (A/AC.105/C.2/L.59), a joint proposal by Austria, Belgium, Canada, Italy, Japan and Sweden (A/AC.105/C.2/L.62) and a proposal by Austria (A/AC.105/C.2/L.65);

(c) On the question of nuclear damage, a proposal was submitted by the United Kingdom (A/AC.105/C.2/L.68);

(d) Also submitted were a working paper by Italy concerning the nature of liability for damage occurring in the different environments (A/AC.105/C.2/L.63) and a working paper by Japan concerning certain aspects of the question of damage and of the question of joint liability (A/AC.105/C.2/L.61 and Corr.1).

20. The draft conventions previously submitted by Belgium, Hungary and the United States and the revised draft conventions submitted at the current session by India and Italy, together with all proposals and working papers referred to in paragraph 19 above, are reproduced in the present report (appendix II).

21. The Sub-Committee reached agreement on certain of the principles relating to the question of applicable law as follows (PUOS/C.2/69/1/Rev.1):

The compensation which the respondent State shall be required to pay for the damage under this Convention should be determined in accordance with international law.

If there is agreement on the applicable law between the claimant and the respondent, then that law should be applied.

22. The Sub-Committee reached provisional agreement on the following points relating to the question of international organizations (PUOS/C.2/69/2):

International organizations that launch objects into outer space should be liable under the Convention for damage caused by such activities.

If damage is caused by a space object to the property of an international intergovernmental organization, the claim should be presented by one of the States members of the international intergovernmental organizations which are Parties to this Convention.

(No agreement was reached on the question whether the liability of the States members of the international organizations that are parties to the liability convention:

(a) Should be residual and arise only in the event of default by the international organization, or

(b) Should arise at the same time as the liability of the international organization.

Nor was agreement reached on other aspects of the question of the rights of international organizations under the Convention. This problem requires further consideration.)

23. In the course of the discussions of the Working Group, the following further proposals and working papers were submitted:

(a) On the question of definitions, proposals were made by Canada (PUOS/C.2/69/WG.1/CRP.6) and Italy (PUOS/C.2/69/WG.1/CRP.7) with respect to the definition of "damage"; and a proposal was submitted by the United States (PUOS/C.2/69/WG.1/CRP.14) and a proposal by Argentina (PUOS/C.2/69/WG.1/CRP.18) regarding the definition of "space object".

(b) In regard to the question of the field of application and exemptions from the provisions of the Convention, a proposal was made by Austria and France (PUOS/C.2/69/WG.1/CRP.1). A working paper was submitted by Austria with respect to the question of the field of application and exemptions from the provisions of the Convention and to the question of absolute liability and exoneration from liability (PUOS/C.2/69/WG.1/CRP.2/Rev.1).

(c) On the question of joint liability, proposals were submitted by France (PUOS/C.2/69/WG.1/CRP.5 and CRP.9/Rev.1), Brazil (PUOS/C.2/69/WG.1/CRP.8), Italy (PUOS/C.2/69/CRP.10 and CRP.11), the USSR (PUOS/C.2/69/WG.1/CRP.12), Belgium (PUOS/C.2/69/WG.1/CRP.13), and working papers by the USSR (PUOS/C.2/69/WG.1/CRP.15 and Rev.1), the United States (PUOS/C.2/69/WG.1/CRP.16) and the United Kingdom and the United States (PUOS/C.2/69/WG.1/CRP.17).

(d) With respect to the question of the currency of payment, a proposal was made by the USSR (PUOS/C.2/69/WG.1/CRP.3/Rev.1).

(e) In regard to the question of the time-limits for the presentation of claims, a proposal was submitted by Australia and Canada (PUOS/C.2/69/WG.1/CRP.4).

24. The Sub-Committee approved the following decision of the Working Group relating to joinder of claims:

"There will be no general provision in the text of the Convention relating to joinder of claims on the understanding that the question may be considered later if the need arises, in the context of the settlement of disputes."

(PUOS/C.2/69/WG.1/6)

25. With respect to the question of joint liability, the text agreed at the seventh session of the Sub-Committee was as follows:

"If in the case referred to in paragraph 1 d/ damage is caused to a third State Party to this Convention or to its physical or juridical persons, the States mentioned in paragraph 1 d/ shall be jointly and severally

d/ This paragraph is reproduced as paragraph 3 under the heading "Field of application and exemptions from provisions of agreement; Question of absolute liability and exoneration from liability".

liable. The burden of compensation for such damage shall be apportioned between those States in accordance with the extent to which they were at fault; if the extent of the fault of each of those States cannot be established, the burden shall be apportioned equally between them."

Several delegations observed that the text as previously agreed gave rise to certain problems which required further study.

26. The Sub-Committee approved the following texts formulated by the Working Group:

#### Definitions

"For the purpose of this Convention,

"(a) The term 'damage' means loss of life, personal injury or other impairment of health; or loss of or damage to property of States or of persons, natural or juridical, or property of international organizations;

"(b) The term 'launching' includes attempted launching;

"(c) The term 'launching State' means:

"1. The State which launches or procures the launching of the space object;

"2. The State from whose territory or facility the space object was launched;

"(d) The term 'space object' includes component parts of the space object as well as its launch vehicle and parts thereof."

(PUOS/C.2/69/WG.1/11/Rev.4)

#### Field of application and exemptions from provisions of agreement; Question of absolute liability and exoneration from liability

"1. The launching State shall be absolutely liable to pay compensation for damage caused by its space object on the surface of the earth and to aircraft in flight.

"2. Unless otherwise provided in the Convention, exoneration from absolute liability shall be granted to the extent that the respondent establishes that the damage has resulted either wholly or partially from gross negligence or from an act or omission done with intent to cause damage on the part of the claimant or of natural or juridical persons it represents. No exoneration whatever shall be granted in cases where the damage results from activities conducted by the respondent which are not in conformity with international law, in particular, the Charter of the United Nations and the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies.

"3. In the event of damage being caused elsewhere than on the surface of the earth to a space object of one State or to persons or property on board such a space object by the space object of another State, the latter shall be liable only if the damage is due to its fault or the fault of persons for whom it is responsible.

"4. The provisions of this Convention shall not apply to damage caused by the space object of a launching State to:

"(a) Nationals of that launching State;

"(b) Foreign nationals during such time as they are participating in the operation of that space object from the time of its launching or at any stage thereafter until its descent, or during such time as they are in the immediate vicinity of a planned launching or recovery area as the result of an invitation by that launching State."

(PUOS/C.2/69/WG.1/5)

#### Question of joint liability<sup>e/</sup>

"Whenever two or more States jointly launch a space object, they shall be jointly and severally liable for any damage caused."

(PUOS/C.2/69/WG.1/10)

"The State which has paid compensation for damage shall have the right to present a claim for indemnification to other participants in the joint launching. The participants in a joint launching may conclude agreements regarding the apportioning among themselves of the financial obligation in respect of which they are jointly and severally liable. Such agreements shall be without prejudice to the rights of the State sustaining damage caused by the space object."

(PUOS/C.2/69/WG.1/12)

#### Presentation of claims by States or international organizations and on behalf of natural or juridical persons

"1. A Contracting Party which suffers damage, or whose natural or juridical persons suffer damage, may present a claim for compensation to a respondent.

"2. Subject to the provision of paragraph 1, a Contracting Party may also present to a respondent a claim in respect of damage sustained by any natural or juridical person in its territory.

<sup>e/</sup> There was no agreement on whether the State whose territory or facility was used for the launching of a space object should be considered as a participant in the joint launching of that space object and whether that State should be primarily or secondarily liable.

"3. A Contracting Party may also present a claim for damage sustained by its permanent residents in respect of whom neither the State of nationality nor the State in which the damage was sustained has presented a claim or notified its intention of presenting a claim.

"4. No claim may be presented under this Convention in respect of the nationals of the respondent."

(FUOS/C.2/69/WG.1/4)

Presentation of claims for compensation through diplomatic channels

"A claim shall be presented through diplomatic channels. A claimant may request another State to present its claim and otherwise represent its interests in the event that it does not maintain diplomatic relations with a respondent."

(PUOS/C.2/69/WG.1/7)

Time-limits for presentation of claims

"1. A claim may be presented not later than one year following the date of the occurrence of the accident or the identification of the party that is liable.

"2. If the claimant State does not know of the facts giving rise to the claim within the aforementioned one-year period, it may present a claim within one year following the date on which it learned of the facts; however, this period shall in no event exceed one year following the date on which the claimant State could reasonably be expected to have learned of the facts through the exercise of due diligence.

"3. The above-mentioned time-limits shall apply even if the full extent of the damage may not be known. In this event, however, the claimant State shall be entitled to revise its claim and submit additional documentation beyond the above-mentioned time-limits until one year after the full extent of such damage is known."

(PUOS/C.2/69/WG.1/9)

Pursuit of remedies available in respondent State or under other international agreements

"Presentation of a claim under the Convention shall not require the prior exhaustion of any local remedies that may be available to the claimant or to those whom the claimant represents.

"Nothing in this Convention shall prevent a claimant or any natural or juridical person that it might represent from pursuing a claim in the courts or administrative tribunals or agencies of a respondent. A claimant shall not however be entitled to pursue claims under this Convention in respect of the same damage for which a claim is being pursued in the courts or administrative tribunals or agencies of a respondent, or under another international agreement which is binding on the claimant and the respondent."

(PUOS/C.2/69/WG.1/8)

Appendix I

PROPOSALS CONCERNING QUESTIONS RELATIVE TO THE DEFINITION  
OF OUTER SPACE AND THE UTILIZATION OF OUTER SPACE AND  
CELESTIAL BODIES, INCLUDING THE VARIOUS IMPLICATIONS OF  
SPACE COMMUNICATIONS

France: proposal (A/AC.105/C.2/L.45)

Draft convention concerning the registration of objects launched  
into space for the exploration or use of outer space

The Governments signatories of this Convention,

Considering that the registration or entry in a register of objects launched into outer space is mentioned in several provisions 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,

Considering the advantages, at the international level, of the establishment of common rules governing the registration of objects launched into space for the exploration or use of outer space,

Have agreed on the following provisions:

Article 1

Any object launched into space for the exploration or use of outer space shall be registered by entry in a register kept by a service under the supervision of one or more Governments Parties to this Convention. Each Government shall inform the Depositary Government of the establishment or termination of the services under its supervision.

There shall be only one registration of each object, but the registration may be transferred from one service to another.

Article 2

Each Contracting Party, acting separately or, in the case of a joint service, together with the other Contracting Parties exercising supervision over that service, shall determine the rules of law applicable to registration.

However, the entry in the register concerning each object shall include at least:

- (a) The registration number;
- (b) Where applicable, the name of the object;
- (c) The name and address of the governmental or intergovernmental agency or non-governmental entity procuring the launching;

(d) The external specifications of the object, such as total weight, shape, dimensions and external component parts;

(e) The law applicable to the object and to the persons carried in it when an intergovernmental agency or a group of natural or juridical persons, referred to in sub-paragraph (c) hereof, procures the launching.

Each Contracting Party undertakes to provide any other Contracting Party with any information requested by the latter regarding the particulars referred to in sub-paragraphs (a) and (c) of the preceding paragraph concerning any object registered by a service under its supervision, whether such supervision is exclusive or shared with other Governments.

The registers of services functioning in the territory of any State whose Government is a party to this Convention shall be, so far as possible, be accessible to the public.

### Article 3

The registration number shall be composed of:

(a) The letter C, followed by a dash;

(b) The mark of the registration service, chosen from among the symbols assigned by international telecommunications regulations as identifying radio call signals to the State or States exercising supervision over the service which keeps the register. This mark shall be followed by a dash;

(c) The registration mark, consisting of Roman capital letters, Arabic numerals or a combination of such letters and numerals. This mark must be clearly distinguishable from those reserved for aircraft or for distress or emergency signals.

This number shall be displayed in at least two places on the object and on opposite sides thereof, if the size of the object permits. It shall be repeated as frequently as possible in order to permit identification, in case of accident, of portions or component parts of the object. The height of the characters shall be determined by technical considerations. The number shall be shown on at least one identification plate inside the object. The processes and materials used for reproduction of the registration number and manufacture of the identification plate shall be such, having regard to the conditions in which the object will be used, as to provide the best possible guarantee that the registration number will be identifiable as speedily as possible if the object or its component parts are found.

### Article 4

At two-year intervals, on the proposal of the Government Depositary of this Convention, a conference shall be convened in order to consider in the light, inter alia, of scientific and technical advances, measures which could be adopted with regard to the questions dealt with in articles 2 and 3 of this Convention.

At such a conference, it may be decided by unanimous vote of the Contracting Parties represented and voting that the said common rules may at subsequent

conferences be adopted by a two-thirds majority of the Contracting Parties represented and voting and be binding upon all the Contracting Parties.

The first conference shall take place in the third year after the date of entry into force of this Convention.

### Article 5

Any Contracting Party may propose amendments to this Convention.

For this purpose, it shall transmit the text of the amendment to the Depositary Government, which shall communicate it to all the other Governments Parties. If at least one third of the latter state that they consider it necessary to discuss the proposal, a review conference shall be convened as soon as possible on the proposal of the Depositary Government.

Amendments adopted by the majority of the Contracting Parties represented and voting shall enter into force for the Government ratifying approving or accepting them one month s after one half of the Contracting Parties, at the date of adoption of the amendment by the conference, have deposited the instrument of ratification or the notification of approval or acceptance concerning them with the Government Depositary of this Convention. They shall enter into force for any other Government one month s after that Government has deposited the relevant instrument or notification.

If, after the Depositary Government has informed the other Governments Parties to this Convention of the text of a proposed amendment, at least two thirds of the Contracting Parties intimate that the amendment can be adopted without the convening of a review conference, the said amendment shall enter into force, for those Contracting Parties, one month s after the last reply from one of them has reached the Depositary Government. The amendment shall enter into force for any other Contracting Party one month s after its reply has reached the Depositary Government.

### Article 6

No reservation may be made in respect of this Convention.

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\*   \*  
\*

(followed by the formal provisions)

Czechoslovakia: proposal (A/AC.105/C.2/L.46)

The Legal Sub-Committee,

Having in mind the increasing significance of space communications and the technical development in this field,

Taking into account the useful activity of the International Telecommunication Union in the field of space communications,

Recalling resolution 2222 (XXI) of the General Assembly of the United Nations,

Decides to put on the agenda of its next session, in connexion with the item "Study of questions relative to (a) The definition of outer space; (b) The utilization of outer space and celestial bodies, including the various implications of space communications", the question: "The utility of the elaboration of the legal principles on which the creation and functioning of space communications should be based."

Poland: working paper (A/AC.105/C.2/L.53)

In the elaboration of treaty rules governing the exploration and use of outer space, it is necessary to prepare such rules relating specifically to man's activities on the surface of the moon and other celestial bodies.

Argentina: proposal (A/AC.105/C.2/L.54)

The Legal Sub-Committee,

Desiring to continue the progressive elaboration of space law scientifically,

Considering that in July next various substances will be taken from the surface of the moon and transported to earth,

Recommends the Committee on the Peaceful Uses of Outer Space to include in the next session of the Legal Sub-Committee the study of the question of the legal status of substances, resources and products coming from the moon.

Canada: proposal (A/AC.105/C.2/L.55/Rev.1)

The Legal Sub-Committee

Recommends to the Committee on the Peaceful Uses of Outer Space that the Scientific and Technical Sub-Committee be invited to study as soon as possible the technical aspects of the registration of objects launched into space, for the exploration and use of outer space, obtaining if considered appropriate suitable information from the United Nations specialized agencies, such as the International Telecommunications Union, the Inter-Governmental Maritime Consultative Organization and the International Civil Aviation Organization, on the registration of ships, aircraft, etc., as well as from the Committee on Space Research of the International Council of Scientific Unions and other competent international organizations concerned with the registration of such launchings.

Belgium: proposal (A/AC.105/C.2/L.56)

Draft resolution relating to the definition of outer space

The Legal Sub-Committee of the Committee on the Peaceful Uses of Outer Space,

Recalling General Assembly resolution 2453 B (XXIII) of 20 December 1968 and in particular paragraph 2 (b),

Having in mind article II 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,

Taking cognizance of the results of the study of the question relative to the definition of outer space by the Scientific and Technical Sub-Committee at its fifth and sixth sessions,

Anxious to continue its studies of the definition and/or the delimitation of outer space,

Invites the Secretary-General to prepare a background paper for the next session of the Legal Sub-Committee on the question of the definition and/or the delimitation of outer space, taking into account both the data provided by the study carried out by the Legal Sub-Committee and the Scientific and Technical Sub-Committee, and also the contributions, studies, data and documents which may be obtained from the specialized agencies and other international and national organizations and institutions which are interested in the subject.

Czechoslovakia: proposal (A/AC.105/C.2/L.57 and Corr.1)

Include in the final report the following text:

"During the general exchange of views in connexion with item 3 of the agenda, the delegations of Czechoslovakia and the United Arab Republic expressed the view that in the future the study of the usefulness and feasibility of establishing an intergovernmental international agency for outer space affairs should be undertaken."

France: proposal (A/AC.105/C.2/L.64)

The Legal Sub-Committee of the Committee on the Peaceful Uses of Outer Space,

Anxious to continue its studies of the definition, exploration and use of outer space,

1. Invites the Secretary-General to prepare for the next session of the Legal Sub-Committee:

(a) A background paper on the problem of the definition and/or the delimitation of outer space, taking into account both the data provided by the study carried out by the Legal Sub-Committee and the Scientific and Technical Sub-Committee, and also the contributions, studies, data and documents obtainable from the specialized agencies and other international and national organizations and institutions interested in the subject;

(b) A background paper on the results of the studies to be furnished by the specialized agencies and the International Atomic Energy Agency in accordance with General Assembly resolution 2453 (XXIII);

2. Recommends the Committee on the Peaceful Uses of Outer Space to include in the agenda for the next session of the Legal Sub-Committee:

- (a) Consideration of the draft convention concerning the registration of objects launched into space for the exploration or use of outer space;
- (b) Consideration of matters relating to the definition of outer space;
- (c) Consideration of matters relating to the exploration and use of outer space, including -
  - (i) The results of the studies undertaken by the specialized agencies and the International Atomic Energy Agency in accordance with General Assembly resolution 2453 (XXIII);
  - (ii) Questions relating to the legal régime governing man's activities on the surface of the moon and of other celestial bodies.

Argentina and Poland: proposal\* (A/AC.105/C.2/L.66)

The Legal Sub-Committee,

Desiring to further the progressive development of space law,

Considering that in the near future the landing on the moon and man's activities in the exploration and use of the moon will necessitate the elaboration of specific rules,

Recommends the Committee on the Peaceful Uses of Outer Space to include as soon as possible in the programme of work of the Legal Sub-Committee the study of the question of the rules governing man's activities on the moon and other celestial bodies, in particular, the legal status of substances, resources and products taken from the moon and other celestial bodies.

Argentina, France and Poland: proposal (A/AC.105/C.2/L.69)

It has been agreed that under the agenda item entitled "Study of questions relative to the utilization of outer space and celestial bodies, including the various implications of space communications", the Sub-Committee will examine the following questions:

- (a) Consideration of the draft convention concerning the registration of objects launched into space for the exploration or use of outer space;
- (b) Consideration of the question of the rules which should govern man's activities on the moon and other celestial bodies, including the legal régime governing substances coming from the moon and from other celestial bodies.

\* This proposal replaces the proposals contained in documents A/AC.105/C.2/L.53 and L.54.

## Appendix II

### PROPOSALS AND OTHER DOCUMENTS RELATING TO LIABILITY FOR DAMAGE CAUSED BY THE LAUNCHING OF OBJECTS INTO OUTER SPACE

Belgium: proposal for a convention on the unification of certain rules governing liability for damage caused by space devices to third parties on the surface of the earth and to aircraft in flight (A/AC.105/C.2/L.7/Rev.3)

The Contracting Parties,

Recalling the terms of the Treaty, signed on 27 January 1967, on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies,

Recognizing that activities in the exploration and peaceful uses of outer space may from time to time result in damage,

Recognizing the need to establish rules governing liability with a view to ensuring that compensation is paid for damage thus caused,

Have agreed as follows:

#### Article 1

(a) The provisions of this Convention shall apply to compensation for damage caused to persons or property by a space device or space devices. They shall not apply to compensation for damage caused in the territory of the launching State or suffered by its nationals or permanent residents, or for damage caused by a space device to another space device.

(b) The occurrence of the event causing the damage shall create a liability for compensation once proof has been given that there is a relationship of cause and effect between the damage, on the one hand, and the launching, motion or descent of all or part of the space device, on the other hand.

(c) If the damage suffered results either wholly or partially from an act or omission on the part of the applicant State or of natural or juridical persons that it represents and such act or omission has been committed, either with intent to cause damage or rashly and in full knowledge that damage will probably result, the liability of the launching State to pay compensation under this Convention shall, to that extent, be wholly or partially extinguished.

#### Article 2

"Damage" shall be understood to mean loss of life, bodily injury or damage to property for which compensation may be claimed and assessed under the national law of the person injured, or if not, under applicable principles of international law.

"Launching" shall be understood to mean an attempted launching or a launching operation proper, whether or not it fulfils the expectations of those responsible therefor.

"Space device" shall be understood to mean any device intended to move in space and sustained there by means other than the reaction of air, as well as any constituent element of such device or of the equipment used for its launching or propulsion.

"Launching State" shall be understood to mean the State or States which carry out the launching of a space device or, when the applicant State is not able to determine the said State or States, the State whose territory is used for such launching.

"Applicant State" shall be understood to mean the State which has been injured, or whose nationals, whether natural or juridical persons, or whose permanent residents have been injured, and which presents a claim for compensation.

#### Article 3\*

The launching State shall be held liable for compensation for damage caused in the circumstances stated in article 1 and defined in article 2. If several States participate in the launching of a space device, they shall be held jointly and severally liable.

#### Article 4

(a) Within two years after the occurrence of the damage, or after the identification of the State liable under article 1, the applicant State shall present through the diplomatic channel, to the State which it holds liable, all claims for compensation concerning itself and its nationals and residents. A Contracting Party may request another State to present its claim and otherwise represent its interest in the event that it does not maintain diplomatic relations with the launching State.

(b) If the applicant State or a person represented by it brings an action for compensation before the courts or administrative organs of the State receiving the claim, it shall no longer be able to present a claim for compensation for the same damage under the provisions of this Convention. The said provisions shall not be considered to require, by implication, the prior exhaustion of such remedies as may exist under the rules of ordinary law in the State receiving the claim.

(c) If the State receiving the claim has not taken, within six months after being approached, a decision considered satisfactory by the applicant State, the latter may have recourse to arbitration.

Within ninety days of the date of the request addressed to it by the applicant State, the State receiving the claim shall appoint one arbitrator, the applicant

\* The Belgian delegation reserves the right to submit an amendment dealing with the principle enunciated in this article.

State shall appoint a second and the President of the International Court of Justice a third. If the State receiving the claim fails to appoint its arbitrator within the prescribed period, the person appointed by the President of the International Court of Justice shall be the sole arbitrator.

The Arbitration Commission shall take its decisions according to law\* and by majority vote. It shall make an award within six months after the date of its establishment and its decisions shall be binding.

(d) Sums due in compensation for damage shall be fixed and payable either in the currency of the applicant State or in a freely transferable currency.

(e) The periods specified in this article shall not be subject to interruption or suspension.

(f) There shall be joinder of claims where there is more than one applicant in respect of damage due to the same event or where more than one State is liable and the damage was caused by more than one space device.

#### Article 5

This Convention shall be open for signature by States Members of the United Nations or any of the specialized agencies or parties to the Statute of the International Court of Justice, and by any other State invited by the General Assembly of the United Nations to become a Party to the Convention. Any such State which does not sign this Convention may accede to it at any time.

This Convention shall be subject to ratification or approval by signatory States. Instruments of ratification or approval and instruments of accession shall be deposited with the Secretary-General of the United Nations.

This Convention shall enter into force thirty days after the date of the deposit of three instruments of ratification, approval or accession. For each State which deposits its instrument of ratification, approval or accession after the entry into force provided for in the preceding paragraph, this Convention shall enter into force on the date of deposit of such instrument.

#### Article 6

International organizations which undertake to comply with this Convention shall have the same rights and obligations as States. The States members of the said international organizations shall be held jointly and severally liable for the obligations of the latter, whether or not such States are parties to the Convention. The accession of an international organization shall be accompanied by a notification of the joint and several obligations so assumed by the States members of the organization concerned.

\* An alternative might be "take its decisions ex aequo et bono".

The claims referred to in article 4 (a) may, in the case of the international organization, be presented through the Secretary-General of the United Nations.

#### Article 7

Each Contracting Party may notify the Secretary-General of the United Nations of its withdrawal from this Convention not less than five years after its entry into force. Such withdrawal shall take effect one year after receipt of the notice, which must be in writing. Such withdrawal shall not relieve the Contracting Party concerned of any obligation or liability arising from damage inflicted before its withdrawal takes effect.

#### Article 8

This Convention may be amended or supplemented at the proposal of one or more Contracting Parties. Such amendments shall take the form of additional protocols which shall be binding on such Contracting Parties as ratify, approve or accede to them. Such protocols shall enter into force when the majority of the Contracting Parties to this Convention have thus accepted them.

#### Article 9

The Secretary-General of the United Nations shall inform signatory States, and those which ratify, approve or accede to this Convention, of signatures, the deposit of instruments of ratification, approval or accession, the entry into force of this Convention, proposals for amendments, notifications of acceptance of additional protocols, and notices of withdrawal.

#### Article 10

This Convention, of which the Chinese, English, French, Russian and Spanish texts are equally authentic, shall be deposited with the Secretary-General of the United Nations, who shall send certified true copies to all signatory States and to any State Member of the United Nations which so requests.

IN WITNESS WHEREOF the undersigned, duly authorized, have signed this Convention.

Done at..... on .....

United States of America: proposal (A/AC.105/C.2/L.19 and L.58)

### Convention concerning liability for damage caused by the launching of objects into outer space

#### The Contracting Parties,

Recognizing that activities in the peaceful exploration and use of outer space may on occasion result in damage,

Recalling the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, signed on 27 January 1967,

Seeking to establish a uniform rule of liability and a simple and expeditious procedure governing financial compensation for damage,

Believing that the establishment of such a procedure will contribute to the growth of friendly relations and co-operation among nations,

Agree as follows:

#### Article I - Definitions

For the purposes of this Convention,

(a) "Damage" means loss of life, personal injury, or damage to property whether partial or total.

(b) The term "launching" includes attempted launchings.

(c) "Launching State" means a Contracting Party, or an international organization that has transmitted a declaration to the Secretary-General under article V, paragraph 1, of this Convention, that launches or actively and substantially participates in the launching of an object into outer space, or from whose territory or facility an object is launched into outer space, or that exercises control over the orbit or trajectory of such an object.

(d) "Presenting State" means a Contracting Party, or an international organization that has transmitted a declaration to the Secretary-General under article V, paragraph 1, of this Convention, that presents a claim for compensation to a Respondent State.

(e) "Respondent State" means a Launching State from which compensation is sought under this Convention.

#### Article II - Liability

1. The Launching State shall be absolutely liable to pay compensation to the Presenting State, in accordance with the provisions of this Convention, for damage shown to have been caused by the launching, transit or descent of all or part of a space object.

2. If the damage suffered results either wholly or partially from a wilful or reckless act or omission on the part of the Presenting State, or of natural or juridical persons that it represents, the liability of the Launching State to pay compensation under paragraph 1 of this article shall, to that extent, be wholly or partially extinguished.

3. There shall be no liability under this Convention for damage caused to persons and property within a launch facility or immediate recovery area for participation in or observation of the launch or recovery, or to space objects and their personnel during launching, transit or descent.

### Article III - Multiple Respondent States

1. If under paragraph 1 of article II or paragraph 3 of article V two or more Launching States would be liable to pay compensation, the Presenting State may proceed against any or all such States individually or jointly for the total amount of damages.

2. When the Presenting State proceeds against less than all possible Respondent States, the State or States proceeded against shall within three months give formal notice to any other Launching States which may be involved, and the States so notified shall also become Respondent States and shall participate in the settlement or other disposition of the claim.

3. When a claim has been presented to only one Launching State and it does not notify and join other Launching States under paragraph 2 of this article, it shall pay the entire compensation which is found to be due. If any Launching States are originally joined, or if a Respondent State notifies and joins the other Launching States, any settlement, agreement or judgement shall specify the apportionment of liability among the several Respondent States.

4. If a number of Contracting States co-operate in a launching, and if they reduce the terms of their co-operation to writing and file a copy thereof with the Secretary-General of the United Nations, Presenting States shall be on notice as to those terms and shall be bound to observe the proportionate shares of liability assumed by the several Contracting States. If payment of the specified proportionate share has not been made by one or more Respondent States six months after the amount of over-all liability has been ascertained, a Presenting State may demand payment from any other Respondent State as provided in article III, paragraph 6.

5. The amount recoverable by the Presenting State from any one Respondent State shall be reduced to the extent of any compensation received in respect of that claim by the Presenting State from any other Respondent State, so that in no case shall the aggregate of the compensation paid in respect of any one claim exceed the amount which would be payable under this Convention if only one Respondent State were liable.

6. If any one of several Respondent States fails to pay its proportionate share of the over-all liability within six months of the date of the ascertainment of the amount due, the Presenting State may demand payment from any or all of the other Respondent States.

7. A Respondent State which has not paid its proportionate share of the over-all liability to the Presenting State shall be obligated to reimburse the other Respondent States for their payments in excess of their proportionate shares.

8. The periods specified in this article shall not be subject to interruption or suspension.

### Article IV - Measure of damages

The compensation which a State shall be liable to pay for damage under this Convention shall be determined in accordance with applicable principles of international law, justice and equity.

### Article V - International organizations

1. If an international organization which conducts space activities transmits to the Secretary-General of the United Nations a declaration that it accepts and undertakes to comply with the provisions of the present Convention, all the provisions, except articles XII, XV, XVI and XVII, shall apply to the organization as they apply to a State which is a Contracting Party.

2. The Contracting Parties to the present Convention undertake to use their best endeavours to ensure that any international organization which conducts space activities and of which they are constituent members is authorized to make and will make the declaration referred to in paragraph 1 of this article.

3. If within one year of the date on which compensation has been agreed upon or otherwise established pursuant to article X, an international organization fails to pay such compensation, each member of the organization which is a Contracting Party shall, upon service of notice of such default by the Presenting State within three months of such default, be liable for such compensation in the manner and to the extent set forth in article III.

### Article VI - Presenting a claim

1. A Contracting Party which suffers damage referred to in article II, paragraph 1, or whose natural or juridical persons suffer such damage, may present a claim for compensation to a Respondent State or States.

2. A Contracting Party may also present to a Respondent State a claim of any natural person, other than a person having the nationality of a Respondent State, permanently residing in its territory. However, a claim of any individual claimant may be presented by only one Contracting Party.

3. A claim shall be presented through the diplomatic channel. A Contracting Party may request another State to present its claim and otherwise represent its interest in the event that it does not maintain diplomatic relations with a Respondent State.

4. Notice of a claim must be presented within one year of the date on which the accident occurred or, if the Presenting State could not reasonably be expected to have known of the facts giving rise to the claim, within one year of the date on which these facts became known to the Presenting State even if the nature or extent of the damages may not be known to the Presenting State.

#### Article VII - Nationals

A State shall not be liable under this Convention for damage suffered by its own nationals or nationals of other Respondent States or by juridical persons beneficially owned by such nationals, to the extent of such ownership.

#### Article VIII - Limitation of liability; apportionment

1. The liability of the Launching State or States under this Convention shall not exceed \_\_\_\_\_ with respect to each launching.

2. If the total amount otherwise payable with respect to the claims presented exceeds the limit of liability provided by this article, the following rules shall apply:

(a) If the allowable claims are exclusively in respect of loss of life or personal injury, or exclusively in respect of damage to property, such claims shall be reduced proportionately.

(b) If the allowable claims are both in respect of loss of life or personal injury and in respect of damage to property, three fourths of the total sum distributable shall be appropriated preferentially to meet claims in respect of loss of life and personal injury and, if insufficient, shall be distributed proportionately between the claims concerned. The remainder of the total sum distributable shall be distributed proportionately among the claims in respect of damage to property and the portion not already covered of the claims in respect of loss of life and personal injury.

#### Article IX - Exhaustion of remedies

1. The presentation of a claim under this Convention shall not require exhaustion of any remedies which might otherwise exist in a Respondent State.

2. If, however, the Presenting State, or a natural or juridical person whom it might represent, elects to pursue a claim in the administrative agencies or courts of a Respondent State or pursue international remedies outside this Convention, the Presenting State shall not be entitled to pursue such claims under this Convention against such Respondent State.

#### Article X - Claims commissions

1. If a claim presented under this Convention is not settled within one year from the date on which documentation is completed, the Presenting State may request the establishment of a commission to decide the claim. The competence of such commission shall extend to any dispute arising from the interpretation or application of this Convention. The Respondent State and the Presenting State shall each promptly appoint one person to serve on the commission and a third person, who shall act as a chairman, shall be appointed by the President of the International Court of Justice. If the Respondent State fails to appoint its member within three months, the person appointed by the President of the International Court of Justice shall constitute the sole member of the commission.

2. No increase in the membership of the commission shall take place where two or more Presenting States or Respondent States are joined in any one proceeding before the commission. The Presenting States so joined shall collectively appoint one person to serve on the commission in the same manner and subject to the same conditions as would be the case for a single Presenting State. Similarly, where two or more Respondent States are so joined, they shall collectively appoint one person to serve on the commission in the same way. If the Presenting or Respondent States fail to appoint their member within three months, the person appointed by the President of the International Court of Justice shall constitute the sole member of the commission.

3. The commission shall determine its own procedure.

4. The commission shall conduct its business and arrive at its decision by majority vote. Such decision shall state the views of the members of the commission.

5. The decision of the commission shall be rendered expeditiously and shall be binding upon the parties.

6. The expenses incurred in connexion with any proceeding before the commission shall be divided equally between Presenting and Respondent States.

#### Article XI - Currency

Payment of compensation shall be made in the currency of the Presenting State or a currency convertible readily and without loss of value into the currency of or used by the Presenting State.

#### Article XII - Settlement of disputes

Subject to prior recourse to proceedings under article X, any dispute arising from the interpretation or application of this Convention, which is not previously settled by other peaceful means, may be referred by any Contracting Party thereto to the International Court of Justice for decision.

#### Article XIII - Amendments

A Contracting Party may propose amendments to this Convention. An amendment shall come into force for each Contracting Party accepting the amendment on acceptance by a majority of the Contracting Parties, and thereafter for each remaining Contracting Party on acceptance by it.

#### Article XIV - Withdrawal

A Contracting Party may give notice of withdrawal from this Convention five years after its entry into force by written notification to the Secretary-General of the United Nations. Such withdrawal shall take effect one year from the date of receipt of the notification by the Secretary-General. A State withdrawing from this Convention shall not thereby be relieved of any obligation or liability with respect to damages arising before withdrawal becomes effective.

#### Article XV - Signature and accession

The Convention shall be open for signature by States Members of the United Nations or members of any of the specialized agencies or Parties to the Statute of the International Court of Justice, and by any other State invited by the General Assembly of the United Nations to become a party. Any such State which does not sign this Convention may accede to it at any time.

#### Article XVI - Ratification: depositary

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

#### Article XVII - Entry into force

This Convention shall enter into force thirty days following the deposit of the fifth instrument of ratification or accession. It shall enter into force as to a State ratifying or acceding thereafter upon deposit of its instrument of ratification or accession.

#### Article XVIII - Depositary's duties

The Secretary-General of the United Nations shall inform all States referred to in article XV and all organizations which have made declarations under article V, paragraph 1, of signatures, deposits of instruments of ratification or accession, declarations referred to in article V, paragraph 1, the date of entry into force of this Convention, proposals for amendments, notifications of

acceptances of amendments, the date of entry into force of each amendment, and notices of withdrawal, and shall transmit to those States and organizations certified copies of each amendment proposed.

#### Article XIX

This Convention, of which the Chinese, English, French, Russian and Spanish texts are equally authentic, shall be deposited with the Secretary-General of the United Nations, who shall send certified copies of each to the States mentioned in article XV.

Hungary: revised draft convention concerning liability for damage caused by the launching of objects into outer space (A/AC.105/C.2/L.10/Rev.1 and Corr.1, L.24 and Add.1)

#### The Contracting States,

Recognizing the common interest of mankind in furthering the peaceful exploration and use of outer space,

Recalling the Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space, adopted by the General Assembly on 13 December 1963 as resolution 1962 (XVIII),

Considering that the States and international organizations involved in the launching of objects into outer space should be internationally liable for damage caused by these objects,

Recognizing the need for establishing international rules and procedures concerning such liability to ensure protection against damage caused by objects launched into outer space,

Believing that the establishment of such rules and procedures would facilitate the taking of the greatest possible precautionary measures by States and international organizations involved in the launching of objects into outer space to protect against damage inflicted by objects launched into outer space,

Have decided to conclude the present Convention:

#### The scope of liability

#### Article I

1. The provisions of this Convention shall apply to compensation for loss of life, personal injury or other impairment of health, and damage to property (hereinafter called "damage"):

(a) Caused by an object during its launching into outer space; or

(b) Caused in outer space, in the atmosphere or on the ground by any manned or unmanned space vehicle or any object after being launched, or conveyed into outer space in any other way,

but they shall not apply to nuclear damage resulting from the nuclear reactor of space objects.

2. Liability is also incurred even if, for any reason, the space vehicle or other object has not reached outer space.

3. For the purpose of this Convention "space object" means space ships, satellites, orbital laboratories, containers and any other devices designed for movement in outer space and sustained there otherwise than by the reaction of air, as well as the means of delivery of such objects and any parts thereof.

#### Article II

A claim for damage may be advanced on the ground of loss of profits and moral damage whenever compensation for such damage is provided for by the law of the State liable for damage in general.

#### Article III

Unless otherwise provided in articles IV and V, exemption from liability may be granted only in so far as the State liable produces evidence that the damage has resulted from a wilful act or from gross negligence of the party suffering the damage.

#### Article IV

1. Whenever damage is done to a space object or to persons and property on board by another space object, no claim shall arise between each other, except in so far as the claimant State produces evidence that the damage has been caused because of the fault of the other State or of a person on behalf of whom the latter State might present a claim (article VIII).

2. If in the case mentioned in paragraph 1, a claim arises on the part of a third State, liability of the States liable for the space objects shall be joint and several.

#### Article V

The State shall assume liability for damage caused on the ground, in the atmosphere or in outer space, if the damage occurred while exercising an unlawful activity in outer space or the space vehicle or object was launched for unlawful purposes, or if the damage has otherwise resulted from an unlawful activity. In such cases, the State liable shall be barred from any exoneration whatsoever.

(b) The date of entry into force of this Convention in accordance with articles XIII and XV;

(c) Denunciations received in accordance with article XVI.

#### Article XVIII

The original of this Convention, of which the texts in the Chinese, English, French, Russian and Spanish languages are equally authentic, shall be deposited with the Secretary-General of the United Nations, who shall transmit certified copies thereof to all States.

Working paper submitted by the Italian delegation (A/AC.105/C.2/L.40/Rev.1)

Draft convention concerning liability for damage caused  
by the launching of objects into outer space

#### Preamble

The Contracting Parties,

Recognizing that activities in the peaceful exploration and use of outer space may on occasion result in damage,

Recalling the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, signed on 27 January 1967,

Seeking to establish a uniform rule of liability and a simple and expeditious procedure governing compensation for damage,

Believing that the establishment of such a procedure will contribute to the growth of friendly relations and co-operation among nations,

Agree as follows:

#### Purpose of the Convention

##### Article 1

The purpose of this Convention is to govern the international liability of States for damage caused, in the exercise of their space activities (in accordance with the Treaty of 27 January 1967), to another member State or the natural or juridical persons which it represents.

Definitions (Launching State - Space Object - Damage)

Article 2

1. Launching State shall be understood to mean:

(a) The State which launches or procures the launching of a space object, entered in its own registers or registered with the United Nations Secretariat (which must in any case be notified beforehand of the launching and be provided with all the information necessary to identify the object in question);\*

(b) The State whose territory or facility is used for the launching, even if it does not participate actively in this operation, where it does not indicate which State has actually launched the space object or where the latter is not a party to this Convention.

2. The international organizations referred to in article 6 below shall for this purpose be treated as States.

3. Space object means any man-made object designed to reach outer space and to move there (either naturally or by means of radio-electric signals or the control exercised by pilots on board).

4. For the purposes of this Convention, the component parts of space objects which become detached or are made to detach during transit, and objects which have fallen or are launched from space objects, shall also be deemed to be space objects.

5. Damage means loss of life, personal injury or impairment of health, and destruction of or damage to property caused by space objects.

Field of application of the Convention

Article 3

1. This Convention shall apply to all damage caused by space objects: (a) on the earth; (b) in the earth's atmosphere; (c) in outer space, including other celestial bodies.

2. However, the present Convention shall not cover damage caused in the territory of the Launching State and in particular damage sustained at the time and in the area of launching and return of space objects by persons playing a part in the operations related thereto, or damage sustained, from endogenous causes, by space objects and their personnel during launching, transit or descent. (For this purpose, social labour legislation and agreements between the parties concerned shall be paramount in the assessment of compensation.)

\* The words appearing between brackets in this draft may, if it is considered desirable, be deleted.

Nature of and grounds for liability in the various cases of damage on the earth, in the earth's atmosphere and in outer space

Article 4

1. Damage caused on the earth, even in the case of force majeure, shall constitute grounds for compensation by the very fact that the damage has occurred and was caused by a space object in transit.

2. Damage caused in the earth's atmosphere or in outer space shall constitute grounds for compensation if negligence on the part of the Launching State is proved.

3. When two or more space objects have collided (or interfered with each other in transit), none of the Launching States shall be entitled to claim compensation from any of the others, if the cause of the collision cannot be established or if the collision is attributable to joint negligence or force majeure.

4. Damage caused by collision to aircraft in flight shall be presumed to be due to the fault of the space object; but it shall be open to proof of the contrary.

5. If the collision has caused damage to third parties on the surface of the earth, such damage shall be presumed - vis-à-vis the victims - to be attributable to joint negligence and the States which launched the space objects involved in the collision shall be jointly liable.

Liability for damage (States)

Article 5

1. The Launching State shall be liable for damage caused by a space object.

2. When the launching is carried out jointly by several States or by States and international organizations (referred to in article 6), they shall be jointly and severally liable for the damage caused by the space object.

The responsibility for compensation of the victim of the damage shall be shared by the parties liable in accordance with the agreements previously concluded between them, and if no such agreements exist, it shall be apportioned equally.

Liability for damage (International organizations)

Article 6

1. If an international governmental organization which conducts space activities has transmitted to the Secretary-General of the United Nations a declaration that it accepts and undertakes to comply with the present Convention, all the provisions of the Convention, except articles 13, 16, 17 and 18, shall apply to the organization in the same way as to any Contracting State.

2. Consequently, if the organization launches, or procures the launching of a space object, and that object causes damage, the organization, like any Launching State, shall be directly liable for the damage vis-à-vis the victims.

3. Should the organization fail to pay the amount of the compensation already agreed to or fixed, the States members of the organization may be called upon to pay within the period and under the conditions referred to in article 10 below.

#### Extinction or reduction of liability

##### Article 7

If the damage was caused, either wholly or partially, by an act or omission on the part of the victim, the liability of the Launching State may in the case of a wilful act be extinguished or in the case of negligence be reduced, according to the gravity of the act or omission.

#### Determination of compensation

##### Article 8

The compensation which the Launching State shall be required to pay under this Convention for the damage it has caused shall be determined in accordance with international law, unless the parties agree that it shall be determined in accordance with equity or by applying the national law of their choice.

#### Rules of procedure; claims for compensation

##### Article 9

1. The State which has sustained damage (hereinafter referred to as the Claimant State) may present a claim for compensation to the State which is liable (the Respondent State).

The same claim may be presented by the State for damage caused to its own nationals and to natural or juridical persons permanently domiciled in its territory.

2. The presentation of a claim under this Convention shall not require exhaustion of all the remedies which may be available in the Respondent State.

3. A claim shall be presented through the diplomatic channel within six months reckoned from the date when the damage and the identity of the State liable for it became known.

4. The same procedure shall apply when the claim is presented by or against an international organization. The representation of the international governmental organization, for the purposes of this diplomatic procedure, may then be assumed by one of the States members of the organization.

#### Arbitral Commission for the settlement of compensation claims

##### Article 10

1. If a claim for compensation presented under this Convention is not settled amicably within a period of six months reckoned from the date on which it is presented together with all supporting evidence, the Claimant State may request the establishment of an arbitral commission to rule on the matter.

The Respondent State and the Claimant State shall each promptly appoint one member of the Commission, and a third member, who shall act as chairman, shall be appointed by the President of the International Court of Justice or, by agreements between the parties, by any other scientific legal organization.

If the Respondent State fails to appoint its member within three months, the person who was to act as chairman shall be the sole arbitrator.

2. If in the same dispute there are two or more Claimant States and (or) two or more Respondent States, they shall appoint by agreement between them one person to represent them on the Commission, which shall thus always comprise three members.

3. The Commission shall establish its own rules of procedure. It shall take decisions by majority vote on the basis of article 8 above.

Its decisions shall be final and binding upon the parties.

#### Procedure relating to international organizations which do not pay compensation for damages

##### Article 11

1. If, within six months reckoned from the date on which compensation has been agreed upon or determined pursuant to article 10, an international organization has failed to pay the amount of such compensation, the States members of the organization shall, upon receiving notice of such default from the Claimant State, be jointly obligated to pay the amount of the compensation.

2. Once the amount of the compensation payable by the organization has been agreed upon or determined, the member States may in no circumstances question the justification for or the amount of the compensation.

#### Procedure under ordinary law

##### Article 12

This Convention shall not prejudice the rights of victims to institute proceedings before the ordinary courts of the Claimant State or the Respondent State /or to choose any other international procedure, with a view to obtaining compensation for the damage/.

In such a case, the Claimant State may not have recourse to the procedures referred to in articles 9, 10, and 11 above, unless the parties concerned waive their right to take such action.

Settlement of questions relating to the  
interpretation of the Convention

Article 13

Any question relating to the interpretation or application of this Convention which is not previously settled by other peaceful means or by the Arbitral Commission may be referred by the Contracting Parties to the International Court of Justice for decision.

Amendments

Article 14

A Contracting Party may propose amendments to this Convention. An amendment shall come into force for each Contracting Party accepting the amendment on its acceptance by a majority of the Contracting Parties, and thereafter for each further Contracting Party accepting it.

Withdrawal

Article 15

A Contracting Party may give notice of withdrawal from this Convention five years after its entry into force by written notification to the depositary States. Such withdrawal shall take effect one year from the date of receipt of the notification by one of the said Governments. A State withdrawing from this Convention shall not thereby be relieved of any obligation or liability with respect to damage occurring before its withdrawal.

Signature and accession

Article 16

This Convention shall be open for signature by all States. Any State which does not sign this Convention before its entry into force pursuant to article 18 below may accede to it at any time.

Ratification: depositary

Article 17

This Convention shall be subject to ratification by the signatory States. Instruments of ratification and instruments of accession shall be deposited with the Governments of the Union of Soviet Socialist Republics, the United Kingdom of Great Britain and Northern Ireland and the United States of America.

Entry into force

Article 18

This Convention shall enter into force thirty days after the deposit of the fifth instrument of ratification. It shall take effect for any State subsequently ratifying or acceding to it at the time of the deposit by the State of its instrument of ratification or accession.

Obligation of depositary

Article 19

The Depositary States shall inform all the signatory and acceding States and all the organizations which have made declarations under article 6, paragraph 1, of signatures, deposits of instruments of ratification or accession, declarations of acceptance referred to in article 6, paragraph 1, the date of entry into force of this Convention, proposals for amendment, notifications of acceptance of amendments, the date of entry into force of each amendment, and notices of withdrawal, and shall transmit to the said States and organizations certified copies of each amendment proposed.

Article 20

This Convention, of which the Chinese, English, French, Russian and Spanish texts are equally authentic, shall be deposited with the States referred to in article 17 which shall send a certified copy of each text to the Governments of all the signatory and acceding States.

ANNEX

Preliminary note

This new version of the Italian draft has been prepared with a view to correcting the mistakes which crept into the version submitted to the June 1968 session of the Legal Sub-Committee, and, above all, in order to take account of the discussion and of the decisions taken at that session.

The Italian delegation hopes, with this draft, to make a useful contribution to the structure and final text of the draft convention on the international liability of States with regard to their space activities.

The purpose of the following notes is to ensure a better understanding of the texts proposed and to indicate the reasons why they were chosen.

Ad article 1: Purpose of the convention

None of the drafts at present before the Sub-Committee contains such an article. It would seem useful, however, to specify at the outset the scope of the convention, which is concerned only with the liability of States and not with liability in general. At certain international meetings, such as the recent

United Nations Conference on the Exploration and Peaceful Uses of Outer Space, held at Vienna, one had the impression that there is no uniform interpretation of the real scope of the convention.

#### Ad article 2: Definitions

1. Launching State. According to this paragraph, the Launching State is the one in whose registers the space object is entered. The reasons for this are well known, since they have been explained on numerous occasions, not only by the Italian delegation but also by the French delegation; the main purpose is to enable the victim of the damage to identify, rapidly and on the basis of reliable information, the State which is liable, and, in addition, to secure codification of the rules governing registration, which is now urgently needed.

The Italian delegation prefers the term "Launching State" to the term "Launching Authority". It is pointed out in this connexion that the basic Treaty of 27 January 1967 does in fact use the term "Launching State".

2. International organizations. It is considered that this paragraph ("The international organizations ... shall for this purpose be treated as States") will facilitate the application of many of the provisions of the convention.

3. Space object. The provision that the space object must be man-made is intended to exclude all natural objects, such as meteorites, etc.

4. Damage. This definition refers to damage in general, without any exception. Consequently, nuclear damage should be considered as being included.

#### Ad article 3: Field of application of the convention

2. It is customary (except in the case of conventions which aim to unify legal rules for the purpose of their incorporation in the national legislation of the member States) for all conventions dealing with liability not to apply to damage caused in the territory of the State responsible for the damage.

The Italian draft is based on this principle and thus rejects the provision adopted in other drafts, according to which the convention would not apply "to damage suffered by nationals of the Launching State". The Italian delegation considers this principle unacceptable; it is difficult to see why nationals of the Launching State, who happen to be, even on a permanent basis, in the territory of another State and who sustain damage there, should not be compensated under the convention, if they so desire. Otherwise, such nationals would be forced to follow longer, more complicated and more burdensome procedures. It would undoubtedly be much simpler for them to apply to the authorities of the State in which the damage was sustained, and that State could then represent them in any claim against the Launching State.

Moreover, in such a case, it is appropriate to take as a basis the universally accepted principle of private international law "lex loci delicti commissi".

Article 3, paragraph 2, also excludes from the field of application of the convention damage sustained by equipment and personnel connected with the space object, but only where damage is the result of endogenous causes, i.e. defects of

construction or of handling of the space object in question. This is logical, because the space object belongs to the Launching State and the personnel involved are, consequently, protected by the labour legislation of the State in question and, in any event, by agreements previously concluded between them and the State.

On the other hand, paragraph 2 does not take into consideration any possible harm caused to persons invited to attend the launching or recovery of the space object, since the State issuing the invitation would normally take care to specify the conditions under which the invitation is given, conditions which might vary from one case to another. In any event, this aspect is of no particular relevance to the purposes of this convention.

#### Ad article 4: Nature of and grounds for liability

This is the key article of the Italian draft and particular attention is drawn to it.

The Italian delegation based its draft on the fundamental principle that, in determining the nature of liability in the different cases, the paramount consideration should be the place where the damage was sustained: on the earth, in the earth's atmosphere or in outer space, including other celestial bodies.

Until its 1968 session, the Sub-Committee seemed to favour the application of the principle of absolute or objective liability in all cases, without taking into account the place where the damage was sustained. At the 1968 session, however, it decided to apply, in the case of outer space, the contrary principle of liability through negligence.

The formula which was adopted in that respect (see the summary record of the 23rd meeting, p. 150) does not, however, seem to be satisfactory, since it relates only to damage caused by one space object to another space object, without specifying the cause of the damage or where it took place.

On the other hand, in the text submitted by the United States on that question, specific mention is made of collision (A/AC.105/C.2/L.34 and the summary record of the 23rd meeting, p. 164), but the text refers only to damage caused "to third parties" (on the surface of the earth?).

The Italian delegation believes that the Legal Sub-Committee has not yet arrived at a clear and full conception of the problem. It therefore takes the liberty of drawing the Sub-Committee's attention to the text of article 4 of the Italian draft, which:

(a) Endorses, so far as outer space is concerned, the principle of liability through negligence, which is in accordance with the decision of the Sub-Committee; but the text in question is worded in a more general way, so that it may also be applied to other cases, such as, for example, damage caused by a space object to persons or objects on a celestial body other than the earth;

(b) Deals separately with the case of collision, which calls for special and more detailed provisions, as is demonstrated by maritime and air law, since damage resulting from collision is not restricted to "third parties", as provided in the United States proposal referred to above, but concerns primarily the owners and users of the space objects involved in the collision. In drawing up regulations with regard to such damage, it is important to take into consideration:

- (i) The case of exclusive negligence on the part of one of the space objects concerned, where it would be sufficient to apply the general formula referred to above;
- (ii) The case - and this would be one of the most frequent cases - where it is impossible to establish the cause of the collision and, consequently, impossible to prove negligence; and the case of force majeure. For such cases, the Italian draft provides that each of the objects must bear the cost of the damage it has sustained, without being able to claim any compensation;
- (iii) Finally, the case of joint negligence in respect of which the Italian draft, utilitatis causa, i.e. because of the difficulty of establishing the extent to which each of the objects involved in the collision has been negligent, also provides that each of the objects in question must bear the cost of the damage it has sustained.

In the view of the Italian delegation, without these three specific points, it is impossible to draw up reasonable provisions to govern the case of collision. Their omission would lead to absurd legal and economic consequences, frequently mentioned by the Italian delegation in previous discussions. All this is confirmed by the very interesting paper submitted by Professor Dembling to the recent Conference on Outer Space at Vienna (A/CONF.34/IX.4).

The foregoing relates solely to damage caused in outer space. Damage can, however, also be caused in the earth's atmosphere as a result of a collision between space objects, or between space objects and aircraft (so far as the earth's atmosphere is concerned, it is difficult, if not impossible, to imagine any cause of damage other than collision).

So far, no precise approach to the framing of provisions governing the relative responsibility for such damage has emerged from the debates and decisions of the Sub-Committee. Even at the last session, in 1968, many delegations supported, in such a case, the principle of absolute responsibility, while the texts proposed or provisionally approved seemed to indicate the contrary.

The Italian draft applies here, as in the case of outer space, the principle of negligence, since identical cases can be governed only by the same principles. The Italian draft merely introduces a presumption juris tantum, according to which, in the event of a collision between aircraft and space objects, there is a presumption of negligence on the part of the latter (article 4, paragraph 4).

Finally, we should like to add that article 4, paragraph 5, of our draft accepts, as do all the other drafts, the principle of the absolute and joint liability of the Launching States whose space devices, involved in a collision, have caused damage on the surface of the earth.

The purpose of this paragraph in the Italian text is to make clear that, vis-à-vis the victims of the damage, joint negligence on the part of these States is presumed. This justifies joint liability and does not oblige those entitled to compensation to establish whether there was negligence on the part of the space objects involved in the collision or which of the objects was negligent.

In this last case, the acceptance of the principle of absolute liability is quite understandable, whereas if this principle - which is in itself exceptional - were applied indiscriminately, or without special reason, as would be the case for damage caused in outer space, it would undermine the rule of law, since it would encourage the persons responsible not to apply the necessary diligence in the exercise of their activities.

#### Ad article 6: International organizations

The Italian delegation considers that, for this purpose, the formula used in paragraph 1 of this article, which is taken from the United States draft, is undoubtedly the best. In its view, it is not necessary for the majority of the member States of the organization to be parties to the present convention or to the Treaty of 1967, as proposed by Belgium, France, Sweden and the United Kingdom (A/AC.105/C.2/L.4). Once the organization has decided, by the majority required under its statute, to accept the rights and obligations arising from the convention, it goes without saying that the organization is bound in toto.

#### Ad article 8: Applicable law for determining the amount of damages

The question of which criterion to apply in determining the amount of compensation payable to the victim of the damage is, in itself, a fairly simple one, but the extensive discussions of the subject have succeeded in making it a complicated and a difficult one to solve.

The stages through which the question has gone are well known; some maintained that it should be solved in accordance with the principles of international law, while others asserted that, on the contrary, the law of the State responsible for the damage should apply.

Efforts are currently being made to reach a compromise on the basis of two proposals, one by the United States delegation and the other by the USSR delegation.

In this connexion, the Italian delegation considers that the USSR proposal is too complicated and too detailed and above all, too restrictive, and that it would therefore be difficult to apply.

The United States proposal, on the other hand, is much simpler and closer to Italian thinking, with the exception of one of its phrases ("taking into account the law of the presenting State"), which is very vague and of which it would be difficult to obtain a precise legal understanding.

Consequently, the Italian delegation proposes the following formula, which, while taking up the United States proposal, eliminates the above-mentioned vague phrase: "The compensation which a State shall be required to pay under this

Convention for the damage it has caused, shall be determined in accordance with the principles of international law, unless the parties agree that it shall be determined in accordance with equity or by applying the national law of their choice".

Ad articles 9 to 12: Rules governing claims for compensation and recourse to the arbitral commission

These articles are taken from the United States draft, but the drafting has been slightly simplified (it was perhaps too long and too detailed) and changes have been made on some points of substance, in particular:

(a) The time-limit of one year has been reduced to six months, in conformity with the view expressed in the Sub-Committee.

In the view of the Italian delegation, if a simple and rapid procedure for settling disputes is to be arrived at, the duration of the procedure must be shortened and the number of decision-taking organs must be limited.

This is why the Italian delegation is unable to accept the Indian proposal, based on the Hungarian draft, under which an advisory committee would be introduced between action through the diplomatic channel and the action of the arbitral commission. That would result in lengthening the procedure for settling compensation and would increase its cost.

(b) A reference to international organizations has been added in article 9, paragraph 4, and provision has also been made for such organizations to be represented by one of their member States, since international organizations do not have diplomatic representation stricto sensu.

(c) Article 10, paragraph 3, specifies that the arbitral commission shall take its decisions in conformity with article 8 and that they shall be final and binding upon the parties concerned.

(d) Ad article 11, paragraph 1. The Italian delegation accepts the principle of the joint liability of the States members of the organization, but only from the time at which notification is received that the organization has failed to pay the amount of compensation due for the damage it has caused. Moreover, an addition has been made to the effect that the member States may not question the justification for, or the amount of the compensation, if this amount has been agreed upon amicably or determined by the arbitral commission.

(e) Ad article 12. The Italian delegation has always considered this article to be essential, since the Italian Constitution, like nearly all constitutions, guarantees the right of all its citizens to institute proceedings in its courts; it wished, however, to make it perfectly clear that if the parties concerned waive their right to institute proceedings before the ordinary courts, the State concerned could have recourse to diplomatic procedure to obtain financial compensation for the damage.

The subject of liability

Article VI

1. Liability for damage shall rest with the State or international organization which has launched or attempted to launch the space vehicle or object, or has procured the launching, or with the State from whose territory or facility the launching was made.

2. Where liability may be laid upon more than one State or international organization, their liability towards the claimant shall be joint and several.

Article VII

If liability for damage rests with an international organization, the financial obligations towards States suffering damage shall be met by the international organization and by its member States jointly and severally.

Claims, payment, arbitration

Article VIII

A claim for damage may be made by a State in whose territory damage has occurred or in respect of damage suffered by its citizens or legal entities whether in the territory of that State or abroad.

Article IX

A claim must be presented within one year of the date of occurrence of the damage, or of the identification of the State that is liable. If the applicant State could not reasonably be expected to have known of the facts giving rise to the claim, the claim must be presented within one year of the date on which these facts officially became known.

Article X

The claim shall be presented through diplomatic channels. The claimant State may request a third State to represent its interests in the event it has no diplomatic relations with the State liable.

Article XI

1. In case the State liable does not satisfy the claim of the claimant State, the claim for compensation shall be presented to a committee of arbitration set up by the two States on a basis of parity. This committee will determine its own procedure.

2. Should the committee mentioned in paragraph 1 not arrive at a decision, the States may agree upon an international arbitration procedure or any other method of settlement acceptable to both States.

#### Article XII

Claim for compensation for damage caused by a space ship of a foreign State shall not constitute ground for sequestration or for the application of enforcement measures to such space ship.

#### Final clauses

#### Article XIII

1. This Convention shall be open for signature to all States. It shall be subject to ratification. Instruments of ratification shall be deposited with the Secretary-General of the United Nations.

2. It shall enter into force thirty days after the deposit with the Secretary-General of the United Nations of the fifth instrument of ratification.

#### Article XIV

After the Convention enters into force it shall be open for accession to other States. Instruments of accession shall be deposited with the Secretary-General of the United Nations.

#### Article XV

With respect to each State which ratifies the Convention or accedes thereto after the deposit of the fifth instrument of ratification, the Convention shall enter into force thirty days after the date of deposit by the State of its instrument of ratification or accession.

#### Article XVI

Any Contracting State may denounce this Convention by notification to the Secretary-General of the United Nations. The denunciation shall take effect one year after the date on which the notification has been received by the Secretary-General of the United Nations.

#### Article XVII

The Secretary-General of the United Nations shall notify all States concerning:

(a) The signature of this Convention and the deposit of instruments of ratification or accession in accordance with articles XIII and XIV;

(f) Ad article 13. We think it useful to add this article which makes it optional, and not obligatory, for the parties to refer to the International Court of Justice whenever it is not found possible to settle a question of the interpretation of the provisions of the convention by peaceful means or whenever the arbitral commission considers it desirable for them so to do.

In this connexion, we must point out that the other Indian proposal, under which, if we have understood correctly, the arbitral commission would be barred from interpreting the provisions of the convention, is unfortunately not acceptable. It is obvious that, if he is to take his decisions, any judge has the right and the duty to interpret the law upon which his decision is based. It would be neither rational nor practical to provide otherwise.

#### Ad articles 14 to 20: Final clauses

The Italian delegation has no specific comment to make on these clauses. It simply wishes to propose that the convention should be opened for signature by all States, in the same way as the Treaty of January 1967 and the agreement on assistance to astronauts. It also proposes that the Depositary States should be the same as those specified for the above-mentioned instruments.

NOTE. The Italian draft does not include any article concerning what is known as the "limitation of liability". This means that the Italian Government is opposed to any limitation whatsoever.

However, if the Sub-Committee should decide to include the principle of limitation, the Italian delegation requests that a provision be adopted whereby, in the case of damage caused wilfully, the responsible party shall not be entitled to benefit from the limitation.

#### India: proposal (A/AC.105/C.2/L.32/Rev.2)

#### Convention concerning liability for damage caused by the launching of objects into outer space

#### The Contracting Parties,

Recognizing the common interest of mankind in the peaceful exploration and use of outer space,

Recalling the Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space, adopted by the United Nations General Assembly on 13 December 1963 as resolution 1962 (XVIII),

Believing that the exploration and use of outer space should be carried on for the betterment of mankind and for the benefit of States irrespective of their degree of economic or scientific development,

Desiring to contribute to broad international co-operation in the scientific as well as in the legal aspects of the exploration and use of outer space for peaceful purposes,

Believing that such co-operation will contribute to the development of mutual understanding and to the strengthening of friendly relations between States and peoples,

Recalling resolution 1884 (XVIII), calling upon States to refrain from placing in orbit around the earth any objects carrying nuclear weapons or any other kinds of weapons of mass destruction or from installing such weapons on celestial bodies, which was adopted unanimously by the United Nations General Assembly on 17 October 1963,

Having regard to United Nations General Assembly resolutions 2260 (XXII) of 3 November 1967, 2345 (XXII) of 19 December 1967, and 2453 (XXIII) of 20 December 1968 which inter alia called upon the Committee on the Peaceful Uses of Outer Space to complete urgently the preparation of a draft agreement on liability for damage caused by the launching of objects into outer space,

Bearing in mind the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, and the Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space,

Recognizing that activities in the exploration and use of outer space may from time to time result in damage,

Seeking to establish uniform rules of liability and a simple and expeditious procedure governing financial compensation for damage,

Agree as follows:

#### Article I

For the purpose of this Convention,

(a) The term "damage" means loss of life, personal injury or other impairment of health; or loss of or damage to property of States or of persons, natural or juridical, or property of international organizations and includes both nuclear and non-nuclear damage;

(b) The term "launching" includes "attempted launching";

(c) The term "launching State" means:

(i) The State which launches, attempts to launch or procures the launching of the space object;

(ii) The State from whose territory or facility the space object was launched;

(d) The term "claimant" means the State that presents a claim for compensation to a respondent;

(e) The term "respondent" means a launching State from which compensation is sought under this Convention;

(f) The term "space objects" includes component parts of the space object as well as its launch vehicle and parts thereof.

#### Article II

1. Unless otherwise provided in the Convention, the launching State shall be absolutely liable to pay compensation for damage caused by its space object on the surface of the earth and to aircraft in flight.

2. Exoneration from absolute liability shall be granted to the extent that the respondent establishes that the damage has resulted either wholly or partially from gross negligence or from an act or omission done with intent to cause damage on the part of the claimant or of natural or juridical persons it represents. No exoneration whatever shall be granted in cases where the damage results from activities conducted by the respondent which are not in conformity with international law, in particular, the Charter of the United Nations and the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies.

3. The provisions of this Convention shall not apply to damage caused by the space object of a launching State to:

(a) Nationals of that launching State;

(b) Foreign nationals during such time as they are participating in the operation of that space object from the time of its launching or at any stage thereafter until its descent, or during such time as they are in the immediate vicinity of a planned launching or recovery area as the result of an invitation by that launching State.

#### Article III

1. In the event of damage being caused elsewhere than on the surface of the earth to a space object of one State or to persons or property on board such a space object by the space object of another State, the latter shall be liable only if the damage is due to its fault or the fault of persons for whom it is responsible.

2. If in the case referred to in paragraph 1, damage is caused to a third State Party to this Convention or to its physical or juridical persons, the States mentioned in paragraph 1 shall be jointly and severally liable. The burden of compensation for such damage shall be apportioned between those States in accordance with the extent to which they were at fault; if the extent of the fault of each of those States cannot be established, the burden shall be apportioned equally between them.

#### Article IV

1. Whenever two or more States jointly launch a space object, they shall be jointly and severally liable for any damage caused.

2. The State which has paid compensation for damage shall have the right to present a claim for indemnification to other participants in the joint launching. The participants in a joint launching may conclude agreements regarding the apportionment among themselves of the financial obligations in respect of which they are jointly and severally liable. Such agreements shall be without prejudice to the rights of the State sustaining damage caused by the space object.

#### Article V

A launching State shall be liable to pay compensation without limit for all damage caused to other States.

#### Article VI

If there is agreement between the claimant and the respondent on the applicable law regarding the amount of compensation payable under this Convention, then that law should be applied. If the claimant and the respondent do not agree on the applicable law, the amount of compensation shall be determined in accordance with international law, taking into consideration the law of the claimant State and, where considered appropriate, the law of the respondent State. In case of conflict, international law shall prevail.

#### Article VII

1. A Contracting Party which suffers damage, or whose natural or juridical persons suffer damage, may present a claim for compensation to a respondent.

2. Subject to the provision of paragraph 1, a Contracting Party may also present to a respondent a claim in respect of damage sustained by any natural or juridical person in its territory.

3. A Contracting Party may also present a claim for damage sustained by its permanent residents in respect of whom neither the State of nationality nor the State in which the damage was sustained has presented a claim or notified its intention of presenting a claim.

4. No claim may be presented under this Convention in respect of the nationals of the respondent.

#### Article VIII

1. A claim shall be presented through diplomatic channels. A claimant may request another State to present its claim and otherwise represent its interests in the event that it does not maintain diplomatic relations with a respondent.

2. Presentation of a claim under the Convention shall not require the prior exhaustion of any local remedies that may be available to the claimant or to those whom the claimant represents.

3. Nothing in this Convention shall prevent a claimant or any natural or juridical person that it might represent from pursuing a claim in the courts or administrative tribunals or agencies of a respondent. A claimant shall not however be entitled to pursue claims under this Convention in respect of the same damage for which a claim is being pursued in the courts or administrative tribunals or agencies of a respondent, or under another international agreement which is binding on the claimant and the respondent.

#### Article IX

1. A claim may be presented not later than one year following the date of the occurrence of the accident or the identification of the party that is liable.

2. If the claimant State does not know of the facts giving rise to the claim within the aforementioned one-year period, it may present a claim within one year following the date on which it learned of the facts; however, this period shall in no event exceed one year following the date on which the claimant State could reasonably be expected to have learned of the facts through the exercise of due diligence.

3. The above-mentioned time-limits shall apply even if the full extent of the damage may not be known. In this event, however, the claimant State shall be entitled to revise its claim and submit additional documentation beyond the above-mentioned time-limits until one year after the full extent of such damage is known.

#### Article X

Unless the parties agree otherwise, compensation for damage caused by a space object shall be payable in the currency of the State presenting the claim.

#### Article XI

There may be joinder of claims where there is more than one claimant in respect of damage due to the same event or where more than one State is liable in respect of damage.

#### Article XII

1. In case of disagreement between the claimant and the respondent, the two parties shall endeavour to arrive at a settlement through diplomatic negotiations.

2. If no settlement is arrived at within six months of the presentation of the claim, either party may invoke the provisions of the Compulsory Protocol on Settlement of Disputes, annexed to this Convention.

#### Article XIII

1. The provisions of this Convention shall apply to each international intergovernmental organization which conducts space activities, provided a majority of the States members of that organization are Parties to this Convention.

2. If an international intergovernmental organization is responsible in terms of the provisions of this Convention for damage caused by its space object, both the organization and its members are jointly and severally liable.

3. Claims in respect of damage caused due to the space activities of such an international organization shall be first presented to the organization. If the organization is unable to settle the claim within one year, the claimant may proceed against any one or more of the members of the organization which are also Parties to the Convention.

4. Any claim, pursuant to the provisions of this Convention, for compensation in respect of damage caused to the property of an international intergovernmental organization may be presented by one of the States members of that organization which are Parties to this Convention.

#### Article XIV

1. This Convention, which includes the Compulsory Protocol on Settlement of Disputes as an integral part, shall be open to all States for signature. Any State which does not sign this Convention before its entry into force in accordance with paragraph 3 of this article may accede to it at any time.

2. This Convention shall be subject to ratification by signatory States. Instruments of ratification and instruments of accession shall be deposited with the Governments of the Union of Soviet Socialist Republics, the United Kingdom of Great Britain and Northern Ireland and the United States of America, which are hereby designated the Depositary Governments.

3. This Convention shall enter into force upon the deposit of instruments of ratification by five Governments including the Governments designated as Depositary Governments under this Convention.

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

5. The Depositary Governments shall promptly inform all signatory and acceding States of the date of each signature, the date of deposit of each instrument of ratification or accession to this Agreement, the date of its entry into force and other notices.

6. This Convention shall be registered by the Depositary Governments pursuant to Article 102 of the Charter of the United Nations.

#### Article XV

Any State Party to the Convention may propose amendments to this Convention. Amendments will enter into force for each State Party to the Convention accepting the amendments upon their acceptance by a majority of the States Parties to the Convention and thereafter for each remaining State Party to the Convention on the date of acceptance by it.

#### Article XVI

A Contracting Party may give notice of its withdrawal from the Convention one year after its entry into force by written notification to the Depositary Governments. Such withdrawals shall take effect one year from the date of receipt of this notification.

#### Article XVII

This Convention, of which the Chinese, English, French, Russian and Spanish texts are equally authentic, shall be deposited in the archives of the Depositary Governments. Duly certified copies of this Convention shall be transmitted by the Depositary Governments to the Governments of the signatory and acceding States.

#### Annex I

##### Compulsory Protocol on Settlement of Disputes

The Contracting Parties to the Convention concerning Liability for Damage Caused by the Launching of Objects into Outer Space,

Bearing in mind the provisions of article XII of the Convention pertaining to the settlement of disputes,

Seeking to establish a procedure for the definitive settlement of disputes which may arise between claimants and respondents with regard to claims to compensation for damage,

Agree as follows:

#### Article I

##### Inquiry Commission

1. If no settlement of the claim is arrived at through diplomatic negotiations as provided for in article XII of the Convention, the claimant and the respondent shall establish an Inquiry Commission on the basis of parity, within one month of a request by either claimant or respondent for its establishment.

2. The Inquiry Commission shall, taking into account the positions of the respective parties, make recommendations with regard to the settlement of the claim, within six months of its establishment.

3. The Inquiry Commission shall determine its procedure.

## Article II

### Claims Commission

1. A Claims Commission shall be established upon request of either party if:
  - (i) The Inquiry Commission is not established as provided in article I, paragraph 1;
  - (ii) The Inquiry Commission is unable to arrive at any recommendations within the period specified in article I, paragraph 2, or its recommendations are not implemented within a period of two months.

## Article III

1. The Claims Commission shall be composed of one nominee each of the claimant and the respondent and a third member, the Chairman, to be chosen by the claimant and the respondent jointly. The nominees of the claimant and the respondent shall respectively be designated within two months of the request for the establishment of the Claims Commission.

2. If no agreement is reached on the choice of the Chairman within four months of the request for the establishment of the Claims Commission, the respective Chief Justices of the two parties or other judicial officers or jurisconsults of the two parties shall nominate the Chairman within a period of two months.

3. If no agreement is forthcoming on the choice of the Chairman under the procedure provided for in paragraph 2, the Secretary-General of the United Nations or some other person of similar standing may be requested by either party to nominate the Chairman within a period of two months. The nomination so made shall be binding.

## Article IV

1. If one of the parties fails to designate its nominee within the stipulated period, the Chairman shall, at the request of the other party, constitute a single-member Claims Commission.

2. Any vacancy which may arise in the Claims Commission by way of death, ill-health or resignation of one or more members shall be filled by the same procedure adopted for their original nomination.

3. The Claims Commission shall determine its procedure.

4. The Claims Commission shall determine the place or places where it shall sit and all administrative matters connected therewith.

5. All decisions of the Claims Commission shall be by majority vote, except in cases where a single-member Commission is established.

## Article V

No increase in the membership of the Claims Commission shall take place where two or more claimants or respondents are joined in any one proceeding before the Commission. The Claimants so joined shall collectively nominate one member of the Commission in the same manner and subject to the same conditions as would be the case for a single claimant. When two or more respondents are so joined, they shall collectively nominate one member of the Commission in the same way. If the claimants or the respondents fail to nominate their member within the stipulated period, the Chairman shall constitute a single-member Commission.

## Article VI

1. The Claims Commission shall have competence only with regard to the specific claim before it. The Commission's sole function shall be in the light of the respective conventions of the claimant and the respondent and of the facts of the case as made available to it, to decide on the merits of the claim for compensation and to determine the amount of compensation payable, if any.

2. The Commission shall not have the competence to render an authoritative interpretation of the Convention.

## Article VII

1. The Commission shall be guided by the provisions of article VI of the Convention in so far as the law to be applied by it is concerned.

2. The Commission shall state the reasons for its decision, which shall be final and binding.

## Article VIII

The expenses in regard to the Claims Commission shall be borne equally by the parties.

Argentina: proposal (A/AC.105/C.2/L.59)

Convention concerning liability for damage caused by the  
launching of objects into outer space

Law applicable for the determination of compensation

The amount of compensation payable under this Convention shall be determined in accordance with international law, or with the law agreed upon by the Parties, or with the law of the place where the damage was caused.

International organizations

Article ...

1. The provisions of the present Convention, with the exception of articles -- to --, shall apply, in the same manner as they apply to a State, to any international intergovernmental organization which conducts space activities if the organization declares its acceptance of the rights and obligations provided for in this Convention and if a majority of the States members of the organization are Contracting Parties to this Convention and to the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies.

2. States members of any such organization which are Contracting Parties to this Convention shall support in the organization the making of a declaration in accordance with the preceding paragraph.

3. If an international organization is liable for damage by virtue of the provisions of this Convention, that international organization and those of its members which are Contracting Parties to this Convention shall be jointly and severally liable; provided, however, that:

(a) Any claim for compensation in respect of such damage shall be first presented to the organization;

(b) Only where the organization has not paid, within a period of six months, any sum agreed or determined to be due as compensation for such damage, may the claimant invoke the liability of the members which are Contracting Parties to this Convention for the payment of that sum.

4. Any claim, pursuant to the provisions of this Convention, for compensation in respect of damage caused to an organization which has made a declaration in accordance with paragraph 1 of this article shall be presented by the State in whose territory the headquarters of that organization are situated or, if that State is not a Contracting Party to this Convention, by a member of the organization which is such a Contracting Party.

Japan: working paper (A/AC.105/C.2/L.61 and Corr.1)

The Japanese delegation in its general statement invited the attention of the Legal Sub-Committee to the necessity of clarifying some points in the text agreed in the previous sessions of the Sub-Committee or in the text of draft conventions submitted by member States. Those points are as follows:

1. Indirect damage and delayed damage

The question whether so-called "indirect damage" or "delayed damage" should be covered by the convention was discussed in the previous sessions within the framework of the definition of damage. It is well known that the content or extent of these two terms is differently interpreted in the general international

law and case law of international arbitration. In some cases of international arbitration, these two kinds of damage were compensated but in others they were rejected. Like this, indirect damage or delayed damage is treated differently according to different cases. Therefore, the recent trends in international arbitration have come to attack the problem on the basis of the criteria of the adequate relationship of cause and effect, without using the concept of "indirect damage" or "delayed damage". The Japanese delegation believes that all damages which have adequate relationship of cause and effect with the space activities should be covered in this convention. In order to avoid endless discussion on whether to include those terms of "indirect damage" or "delayed damage" in the definition of damage, we should discuss the problem of these two terms not in the context of definition of damage but in the context of the manner in which the damage occurred, by introducing the notion of adequate relationship of cause and effect or so-called "existence of proximity" in the Anglo-American laws.

In this connexion, article II of the Indian draft convention (A/AC.105/C.2/L.32/Rev.1) provides, "Unless otherwise provided in the Convention a Launching State shall be absolutely liable for damage caused by its space object whether during launching or thereafter" (underlining added by the Japanese delegation). The Japanese delegation fears that this expression "caused by" does not always cover the cases of the above-mentioned adequate relationship of cause and effect, and hopes that more appropriate expression (for example, "arising out of or resulting from...") will be found, or the interpretation will be established that it covers sufficiently the cases of the adequate relationship of cause and effect.

Article II, paragraph 1, of the United States draft convention (A/AC.105/C.2/L.19) provides, "The Launching State shall be absolutely liable to pay compensation to the Presenting State, in accordance with the provisions of this Convention, for damage shown to have been caused by the launching, transit or descent of all or part of a space object" (underlining added by the Japanese delegation). As it stated during the last session, the Japanese delegation interprets that this notion "shown" does not impose on the claimant State any burden of proving the adequate relationship of cause and effect, but the mere obligation to submit the necessary documentation.

2. Damage to a space object by another space object

The Japanese delegation interprets that the "damage" in the text agreed during the last session with regard to the damage to a space object by another space object means a physical damage of a space object, and that it does not include harmful interference itself with radio communications.

3. General principle of liability of State

The text agreed in the plenary meetings during the seventh session concerning the general principle of liability of State provides, "A State which launches a space object or procures the launching ..." (underlining added by the Japanese delegation). The Japanese delegation interprets that "procure" consists of two requirements mentioned in the United States draft convention (A/AC.105/C.2/L.19), namely "actively and substantially participate". The Japanese delegation interprets that "actively participate" means participation in the decision of launching through agreement or consultation with the launching State, and "substantially participate" means participating in the substantial part of the

project. The Japanese delegation also interprets that the manufacture of space objects or technical assistance for the manufacture of them or for the drawing up of a plan of a space object is not, by itself, included in "actively and substantially participate".

4. Liability of a State whose territory or facilities were used for the launching

The text of the principle agreed in the plenary meetings during the seventh session (A/AC.105/C.2/L.36/Rev.2) reads as follows:

"3. The State whose territory or facilities were used for the launching of a space object shall be liable in the same manner as the Launching State if for any reason it does not identify the latter or if the latter is not a Party to this Convention" (underlining added by the Japanese delegation).

The Japanese delegation considers that there are three cases regarding the identification of the Launching State by the State whose territory or facilities were used for the launching, as follows:

(1) The State whose territory or facilities were used for the launching knows the launching State, but does not identify (disclose) the latter for some reason or other.

(2) The State whose territory or facilities were used for the launching has the intention to identify the launching State, but cannot identify the latter. For example, five objects of five different States were launched almost in the same direction from the same facilities and almost at the same time, and two of them fell almost at the same time on two different sites, and there is a big difference between the damage to one site and that to another. The State whose facilities were used cannot identify which one of the objects caused damage to which of the two sites although it wants to identify the launching State.

(3) The State whose territory or facilities were used for the launching identifies the launching State, but the latter denies it, and thus the identification is not finally established.

The text of the principle agreed in the plenary meetings during the last session "for any reason it does not identify the latter (the launching State)" covers case (1) only.

If case (2) as well as case (1) should be covered, the text should read, "for any reason it does not identify the latter, or it cannot identify the latter (the launching State)".

If all these three cases should be covered, the text should read simply, "if the launching State is not identified". The Japanese delegation believes that this provision is the most victim-oriented among the three formulas as mentioned above.

5. Nuclear damage

There are two kinds of nuclear damage. The first is damage resulting from the nuclear reactor or isotope battery of a space object. The second is damage from nuclear materials which spread from the nuclear facilities on the ground or nuclear ships, damaged or destroyed by a space object.

With regard to the first kind of nuclear damage, this convention would be the first international treaty to cover this kind of damage, and there will arise no problem of interrelationship with any other international agreements.

With regard to the second kind of nuclear damage, it may be considered that this kind of damage is covered by this convention, so long as the adequate relationship of cause and effect is established between the fall of the space object and the damage. If it is the case, there will arise a problem of interrelationship with other international agreements, for example, the Vienna Convention on Civil Liability for Nuclear Damage, with regard to damage to foreign nationals. (In case of damage to its nationals, the State will file a claim for compensation against the launching State under this convention.) An example is taken of damage to foreign nationals from nuclear materials spreading out of the nuclear facilities on the ground destroyed by a space object. In this case, the foreign nationals are entitled to obtain compensation from the operator of the nuclear facilities under the Vienna Convention on Civil Liability for Nuclear Damage. After payment of compensation to the foreign nationals, the operator may exercise a right of recourse on some conditions against the launching State for the paid amount of compensation under the Vienna Convention. Since the same case of damage is covered by this convention and also the Vienna Convention, the Japanese delegation interprets that the victim State is envisaged with a choice of two alternatives, namely, the State itself will either claim compensation against the launching State under this convention, or will leave the operator of the facilities to exercise a right of recourse against the launching State under the Vienna Convention.

On the other hand, it is interpreted that the State of nationality of the foreigners also has two alternatives to choose: (1) the State itself will claim compensation against the launching State under this convention, or (2) the State will leave them to submit claim against the operator of the nuclear facilities under the Vienna Convention.

6. The same damage

The second sentence of paragraph 2 of the text agreed in the seventh session under the title of "Pursuit of remedies available in respondent State or under other international agreements" reads as follows:

"A claimant shall not however be entitled to pursue claims under this Convention in respect of the same damage for which a claim is being pursued in the courts or administrative tribunals or agencies of a respondent, or under another international agreement which is binding on the claimant and the respondent." (underlining added by the Japanese delegation)

The Japanese delegation considers that it is necessary to clarify the notion of "the same damage". For example, a claim for compensation was presented against the respondent State in its court or under another international agreement.

The alleged damage consists of several points. In this case, it is interpreted that other points than those being pursued in the court or under an international agreement, or other points than res judicata can be presented to the respondent State under this convention.

Austria, Belgium, Canada, Italy, Japan and Sweden:  
proposal on the applicable law (A/AC.105/C.2/L.62)

The compensation which the respondent State shall be required to pay for the damage under this Convention shall be determined in accordance with international law and the law of the State in whose territory the damage occurred; in the event of any conflict between the aforementioned laws, international law shall apply.

However, the compensation may be determined in accordance with any other principle agreed upon between the claimant State and the respondent State.

Italy: working paper (A/AC.105/C.2/L.63)

The Italian delegation, desiring as comprehensive a convention as possible, and for the sake of clarity, proposes that the following order be followed in drafting the articles referring to the nature of liability for damage occurring in the different environments:

1. Damage on the surface of the earth (absolute liability, even in the case of force majeure);
2. Damage caused in the atmosphere or in outer space (liability based on negligence);
3. Damage generally due to collision, which requires separate provisions for:
  - (a) The case of the exclusive fault of one of the objects in collision;
  - (b) The case in which the cause of the collision cannot be established, or there has been joint negligence or force majeure;
  - (c) The case of collision between space objects and aircraft (for this case the Italian delegation still favours the application of the principle of negligence, accompanied by a presumption of the fault of the space object, which almost amounts to a kind of absolute liability);
  - (d) The case of damage caused by collision on the surface of the earth (vis-à-vis the victims, absolute and joint liability of the objects involved in the collision).

If the provisions are so drafted and arranged in this order, all cases of damage will be covered and the future convention will be easier to apply (the only case which remains in doubt is that of damage caused on the surface of celestial bodies other than the earth).

In this case, will there be absolute liability, as for damage on the earth, or will the principle of negligence be applicable?

Austria: proposal (A/AC.105/C.2/L.65)

Measure of damages (applicable law)

If there is agreement between the claimant and the respondent on the applicable law or on the principles to be applied, then that law or those principles should be applied.

Union of Soviet Socialist Republics and Bulgaria: working paper  
(A/AC.105/C.2/L.67 and Add.1)

Article ...

International intergovernmental organizations that launch objects into outer space shall be liable for damage caused by such objects.

If liability for damage rests with an international intergovernmental organization, the financial obligations towards States suffering damage shall be met by the international intergovernmental organization and by its member States jointly and severally.

If damage is caused by a space object to the property of an international intergovernmental organization, the claim shall be presented by one of the States members of the international intergovernmental organization which are Parties to this Convention.

United Kingdom: proposed principle on nuclear damage (A/AC.105/C.2/L.68)

Nuclear damage should not be excluded from the forms of damage covered by the Convention.

Austria and France: proposal (PUOS/C.2/69/WG.1/CRP.1)

Under the "Points on which agreement was reached" at the sixth session of the Sub-Committee" in document A/AC.105/C.2/W.2/Rev.4/Add.4, page 6\*, replace A (b) by the following text:

"A. ...  
"(b) Subject to ...\*\* foreign nationals participating in operations connected with the launching, transit or descent of a space object or being in the immediate vicinity of a planned launching or recovery area as the result of an invitation by the launching State."

\* See Official Records of the General Assembly, Twenty-third Session, agenda item 24, document A/7285, p. 130, foot-note 2.

\*\* Referring to the text agreed at the seventh session of the Sub-Committee (Official Records of the General Assembly, Twenty-third Session, agenda item 24, document A/7285, p. 130).

Field of application and exemptions from provisions of agreement;  
Question of absolute liability and exoneration from liability

1. The launching State shall be absolutely liable to pay compensation for damage caused by its space object on the surface of the earth and to aircraft in flight. ) Text agreed at the sixth session (1967) with addition approved by Working Group this year (indicated by underlining)
2. Unless otherwise provided in the Convention, exoneration from absolute liability shall be granted to the extent that the respondent establishes that the damage has resulted either wholly or partially from gross negligence or from an act or omission done with intent to cause damage on the part of the claimant or of natural or juridical persons it represents. No exoneration whatever shall be granted in cases where the damage results from activities conducted by the respondent which are not in conformity with international law, in particular, the Charter of the United Nations and the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies. ) Text agreed at the seventh session (1968) and reaffirmed by the Working Group this year
3. In the event of damage being caused elsewhere than on the surface of the earth to a space object of one State or to persons or property on board such a space object by the space object of another State, the latter shall be liable only if the damage is due to its fault or the fault of persons for whom it is responsible. ) Text agreed at the seventh session (1968) with addition made this year (indicated by underlining)
4. The provisions of this Convention shall not apply to damage caused by the space object of a launching State to:  
(a) Nationals of that launching State; ) Text agreed at the sixth session (1967) with addition and other changes approved by Working Group this year  
(b) Foreign nationals participating in the operations connected with the launching, transit or descent of that space object or being in the immediate vicinity of a planned launching or recovery area as the result of an invitation by that launching State. ) Text agreed at the sixth session (1967) with additions proposed by Austria and amendments by the United Kingdom.

Unless the parties agree otherwise, compensation for damage caused by a space object shall be payable in the currency of the State presenting the claim.

Australia and Canada: proposal (PUOS/C.2/69/WG.1/CRP.4)

1. A claim may be presented not later than one year following the date of the occurrence of the accident or the identification of the launching State.
2. If the claimant State does not know of the facts giving rise to the claim within the aforementioned one-year period, it may present a claim within one year following the date on which it learned of the facts; however, this period shall in no event exceed one year following the date on which the claimant State could reasonably be expected to have learned of the facts through the exercise of due diligence.
3. The above-mentioned time-limits shall apply even if the full extent of the damage may not be known. In this event, however, the claimant State shall be entitled to revise its claim and submit additional documentation beyond the above-mentioned time-limits until one year after the full extent of such damage is known.

France: proposal (PUOS/C.2/69/WG.1/CRP.5)

Question of joint liability

If in the case referred to in paragraph 1\* damage is caused to a third State Party to this Convention or to its physical or juridical persons, the States mentioned in paragraph 1\* shall be jointly and severally liable. The burden of compensation for such damage shall be apportioned between those States in accordance with the extent to which they were at fault.

To the extent that the damage caused to the third State was sustained on the surface of the earth or to an aircraft in flight and if the extent of the fault of each of those States cannot be established, the burden shall be apportioned equally between them.

Canada: proposal (PUOS/C.2/69/WG.1/CRP.6)

Definitions

"Damage" means loss of life, personal injury or other impairment of health; or loss of or damage to property of States or of persons, natural or juridical, or property of international organizations.

\* See foot-note to paragraph 25 of the report of the Legal Sub-Committee (annex III).

Italy: proposal (PUOS/C.2/69/WG.1/CRP.7)

Definitions

"Damage" means loss of life, personal injury or impairment of health, and loss of or damage to property or services caused by a space object.

Brazil: proposal (PUOS/C.2/69/WG.1/CRP.8)

Add the following article to the Convention:

Nothing in the Convention shall preclude the conclusion of agreements on the apportionment of liability between two or more Contracting Parties.

France: proposal (PUOS/C.2/69/WG.1/CRP.9/Rev.1)

Question of joint liability

The State whose territory or facility was used for the launching of a space object shall be liable in the same manner as the State which launched, or procured the launching of the space object, if for any reason it does not identify the latter, if the latter is not a Party to this Convention, or if it participated in the operation under a joint programme.

Italy: working paper (PUOS/C.2/69/WG.1/CRP.10)

Liability of the State which lent its territory or the facility for the launching

The State whose territory or facility is used for the launching shall be liable if it participates actively in this operation\* or where it does not indicate (reveal) which State has (actually) launched the space object or where the latter is not a party to this Convention.

Italy: proposal (PUOS/C.2/69/WG.1/CRP.11)

Add to the French proposal (PUOS/C.2/69/WG.1/CRP.9):

"In this last case, the State whose territory or facility is used shall be jointly liable with all the States participating in the joint programme."

USSR: proposal (PUOS/C.2/69/WG.1/CRP.12)

Add the following new paragraph to the reaffirmed text (PUOS/C.2/69/WG.1/10):

The State which has compensated the damage shall have a right of recourse against other participants in a joint launching who are Parties to this Convention.

\* The words underlined are not included in the French proposal. The question arises whether it would be advisable to retain them.

Belgium: proposal (PUOS/C.2/69/WG.1/CRP.13)

Add the following article to the Convention:

"Nothing in this Convention shall prevent the conclusion of agreements relating to the apportionment of liability between two or more Contracting Parties. However, such agreements may not be invoked against claimants."

United States of America: working paper (PUOS/C.2/69/WG.1/CRP.14)

The term "space object" includes parts of the object as well as its boosters and parts thereof.

Union of Soviet Socialist Republics: working paper\*  
(PUOS/C.2/69/WG.1/CRP.15)

The State which has paid compensation for damage shall have the right to present a claim for indemnification to other participants in the joint launching. The participants in the joint launching may conclude an agreement regarding the apportioning among themselves of the financial obligation arising out of the right to claim indemnification. Such agreements shall be without prejudice to the rights of the State sustaining damage caused by the space object.

Union of Soviet Socialist Republics: working paper  
(PUOS/C.2/69/WG.1/CRP.15/Rev.1)

The State which has paid compensation for damage shall have the right to present a claim for indemnification to other participants in the joint launching. The participants in a joint launching may conclude agreements regarding the apportioning among themselves of the financial obligation in respect of which they are jointly and severally liable. Such agreements shall be without prejudice to the rights of the State sustaining damage caused by the space object.

United States of America: working paper  
(PUOS/C.2/69/WG.1/CRP.16)

Article ...

Nothing in this Convention shall preclude a respondent which has paid compensation for damages under this Convention from pursuing a claim for partial or total reimbursement against another (respondent) (State or international organization) which may also be liable for such damage, in whole or in part, under this Convention, under general principles of international law or pursuant to other international agreements.

\* See A/AC.105/C.2/SR.130 (Prov.), page 9 of the English text.

Nothing in this Convention shall prevent the conclusion by participants in a joint launching of agreements regarding the apportionment among themselves of the financial obligations in respect of which they are jointly and severally liable or, if a participant has paid compensation for damage, the presentation by it of a claim for reimbursement from other participants. Such agreements shall be without prejudice to the rights of the State sustaining damage caused by the space object.

Argentina: working paper (PUOS/C.2/69/WG.1/CRP.18)

Definition of "space object"

"Space object" shall be understood to mean any device constructed and launched by man to manoeuvre in outer space together with its launch vehicles and parts thereof.

Appendix III

STATEMENT MADE BY MR. R.E. BUTLER, DEPUTY SECRETARY-GENERAL  
OF THE INTERNATIONAL TELECOMMUNICATION UNION, TO THE LEGAL  
SUB-COMMITTEE AT ITS 113TH MEETING ON 12 JUNE 1969

In view of the general statements made during discussions of item 3 of your agenda in regard to the specialized agencies, I would like to make some comments on behalf of the International Telecommunication Union. I believe also this will accord with the wish expressed in General Assembly resolution 2453 (XXIII).

The ITU is actively pursuing its studies in the development of the necessary international technical, operational and general regulatory requirements in the utilization of space from the telecommunication viewpoint, thus ensuring that countries can look forward to efficient use of space facilities which are established and operated not only alongside other satellite facilities and space services, but also in association with radiocommunication facilities generally.

In reality it is not possible for us to consider space and terrestrial telecommunications in complete isolation from each other, for example, once a satellite or space craft is launched for any use, it is connected to earth only by hertzian waves in much the same way that communication is maintained with aircraft in the air, or between terrestrial stations generally. This is why ITU works in close association with other technical agencies: for example, an essential factor of the successes of ICAO traffic co-ordination, which was referred to yesterday, is the regulated use of the radio spectrum. This use occurs within the broad framework of the ITU regulations derived from World Administrative Radio Conferences.

All of these regulations devolve from the basic framework of the International Telecommunication Convention, which is a convention negotiated by plenipotentiaries of your Governments and subsequently signed and ratified under the normal conditions.

As regards the utilization of space, apart from the specific responsibilities and obligations which are provided by the charter of ITU in its regulation of all telecommunications, we do have in the Convention specific responsibilities relating to such matters as the priority of telecommunications concerning safety of life at sea, on land, in the air or in outer space. This is described in article 39 of the Convention. Additionally, and because of the importance attached to the avoidance of harmful interference in radiocommunications, there is a provision (article 48) which imposes on members the obligation to ensure that all radiocommunication stations are established within their jurisdiction in a manner which avoids interference with others. There is no distinction between space and terrestrial services, bearing in mind of course that for the present at least one of the two terminals involved in intercommunication is located on earth.

There is, too, the obligation under the Convention to operate them in accordance with the provisions of the Radio Regulations which are an integral part of the Convention.

The Radio Regulations are another form of international law, and in regard to the use of space there are provisions of a specific character imposing obligations on members. In most countries, the Radio Regulations are supplemented by national laws for internal regulation.

These Regulations establish the necessary co-ordinating and administrative procedures to be observed by the member Governments in their relationships, bilaterally, multilaterally or through the Union headquarters especially in the tasks assigned to the International Frequency Registration Board, in order to meet the objectives in the ITU Convention.

These Regulations are evolved from the Union's World Administrative Radio Conferences. Such a conference comprises accredited representatives of member Governments acting with credentials signed by the appropriate government authority, that is, Head of State, Head of Government, Minister of Foreign Affairs, etc., depending upon the normal internal regulation of the Government concerned.

As regards the Radio Regulations, there are provisions relating to space services. These resulted from the Union's Administrative Radiocommunication Conference in 1963. These Regulations have been accepted by nearly all member Governments.

Since 1963, there has been tremendous growth both in application and in future utilization of space radiocommunications techniques for all communication requirements.

Apart from meteorology and public telecommunication services, there is considerable interest in satellites for civil aviation and maritime purposes, both for communication and navigation, broadcasts and television distribution, increased space research and radio-astronomy.

These developments and the need for further refinement of the Radio Regulations has led to the ITU decision to convene a Second World Administrative Radio Conference to revise and supplement the existing administrative and technical regulatory provisions, and to adopt as necessary new provisions in so far as they involve space radio techniques, including those for manned space vehicles and for the radio-astronomy service in order to ensure the efficient use of the radio spectrum.

This conference of member government representatives will commence on 7 June 1971 and, in our view, will meet the necessary technical and operating regulatory requirements in the telecommunication field. It will take up the matters requiring attention in the ITU from the telecommunication viewpoint. The Conference has the authority to deal with the matters relating to harmful interference, and not only to amend the existing international regulations but also to adopt such new measures as are necessary for the space services and to make any consequential amendments to other general provisions.

The final acts of this Conference will of course be subject to signature by the duly accredited delegations. Their entry into force will also be conditional on approval being given by the governmental agency of each member country provided for in the ITU Convention.

If there are telecommunication matters which are not competent for the Conference at that time, the Union will have its Conference of Plenipotentiaries in 1972 to consider any changes in the basic instrument, i.e., the International Telecommunication Convention. However, at this stage, we envisage that the 1971 World Administrative Radio Conference has been given an agenda to meet the basic requirements for the radiocommunication service aspects on which all space research and utilization is so heavily dependent.

Thus we believe, as has been implied by the Canadian delegation, that these conferences of the member Governments will be able to deal with all the telecommunication aspects that could require attention.

The Union is also evolving the desired technical operating standards and practices in the form of recommendations through its Consultative Committees, which also provide the basic planning standards for the development of the new regulatory requirements to be settled at the World Administrative Radio Conference.

I would like to make some references to questions of definitions in which there have already been comments in regard to air transportation. In the ITU we have also had to evolve definitions in our statutes to meet the practical service requirements. We do not have a definition of outer space but there is a definition of "deep space", which is defined as "space at distances from the Earth equal to or greater than the distance between the Earth and the Moon". This was essential to meet the radio frequency needs of the space research probes. On the other hand, there is a definition of "space service" which among other factors takes account of the fact that normal terrestrial radiocommunications utilize the ionosphere for relay, which may well be at a point higher than some of the points of delimitation referred to in your debates; this has been necessary for practical communication reasons and even though it may not directly affect resolution of your problems, I draw your attention to it.

This is a short summary of development which has been taking place in ITU.

Separately, we have participated in the study by the Working Group on Direct Broadcast Satellites which has fully recognized the ITU studies in this matter, and produced a report from its first session - a report which was later endorsed by the Scientific and Technical Sub-Committee of the Committee on the Peaceful Uses of Outer Space. The report has urged members to make available the telecommunication results of their further research and experimentation to ITU, which is the competent authority to provide the basic regulatory framework for the telecommunication aspects involved in the use of outer space.

Finally, I stress that in these matters ITU is co-operating closely with IMCO and with the other specialized agencies, in particular, ICAO, WMO and UNESCO, with an interest in space activities, and especially because of the critical role of telecommunication in their interests in space.

Having given this broad exposition of the ITU situation, I and my colleagues will be available to assist the Committee.

Arrangements are being made for the distribution of the agenda which has been approved for the Second World Administrative Radiocommunications Conference, and the ITU report to the Committee on the Peaceful Uses of Outer Space on the development in space technology and studies, etc., during 1968.

#### Appendix IV

##### REGISTRATION WITH THE UNITED NATIONS OF OBJECTS LAUNCHED INTO OUTER SPACE\*

The registration with the United Nations of objects launched into outer space has been frequently referred to in the current debate. It might be useful to make a brief statement on the history of this question and on the information already furnished by the launching States and disseminated by the United Nations.

The question of registration was raised in the United Nations for the first time in 1959, that is some considerable time after the launching of Sputnik I by the USSR in October 1957 and Alpha I by the United States in February 1958. There was no reference to the question of registration in the first two resolutions adopted by the General Assembly on the question of the peaceful uses of outer space, namely resolution 1348 (XIII) adopted in 1958 and resolution 1472 (XIV) adopted in 1959. The question was taken up in the first instance by the Ad Hoc Committee on the Peaceful Uses of Outer Space at its session ten years ago, in May and June 1959. The report of the Ad Hoc Committee stated the following regarding the necessity of identification and registration of space vehicles:

"It is expected that the number of space vehicles will progressively increase. In the course of time, their numbers may become very large. This indicates the necessity of providing suitable means for identifying individual space vehicles. Such identification of space vehicles could be obtained by agreement on an allocation of individual call-signs to these vehicles; the call-signs could be emitted at stipulated regular intervals, at least until identification by other means had been established." f/

The report of the Ad Hoc Committee further referred to the fact that as a part of the problem of identification, there arises the question of placing suitable markings on space vehicles so that, particularly in the event of their return to earth, they may be readily identified. The reasons given in the report for the desirability of maintaining a form of identification and registration may be summarized as follows:

(1) In many cases it will be desirable to have several nations co-operate in the tracking of a space vehicle.

\* Previously issued under the symbol A/AC.105/C.2/6. The statement was delivered by Mr. A.H. Abdel-Ghani, Chief of the Outer Space Affairs Division of the United Nations Secretariat, during the eighth session of the Legal Sub-Committee, at the 115th meeting, on 13 June 1969.

f/ Official Records of the General Assembly, Fourteenth Session, Annexes, agenda item 25, document A/4141, part III, para. 17.

(2) It might also afford a convenient means for the notification of launchings to other States, thus enabling them to make appropriate distinctions between the space vehicles so notified and other objects and to take appropriate measures to protect their interests, if necessary.

(3) It also could be useful in preventing physical interferences between space vehicles and conventional aircraft.

(4) Such identification would be useful where equipment is recovered from space vehicles which had re-entered the earth's atmosphere or where the question of liability arises in connexion with possible damage caused upon re-entry.

The General Assembly later took up this question in its resolution 1721 (XVI), adopted in 1961. The two relevant provisions in this resolution read as follows:

"The General Assembly,

".....

"1. Calls upon States launching objects into orbit or beyond to furnish information promptly to the Committee on the Peaceful Uses of Outer Space, through the Secretary-General, for the registration of launchings;

"2. Requests the Secretary-General to maintain a public registry of the information furnished in accordance with paragraph 1 above."

In accordance with this resolution the States launching objects into outer space or beyond have been submitting to the Secretary-General information on such launchings. This information embodies a census of the names of satellites or space objects or any other designation as well as orbital parameters. For this purpose a public registry was established and is maintained by the Secretary-General. On receiving such information, the Secretary-General issues it in an information series under the symbol A/AC.105/INF. circulated on a general basis, and the original copy is retained in the Outer Space Affairs Division. To this date the United States, the USSR, Italy, France and Australia have submitted notifications of launchings. The first document in the series of information is dated 7 March 1962 and the last document issued is dated 6 June 1969. A set of the documents received and disseminated by the United Nations under the said symbol is also available to the members of the Sub-Committee for reference.

The information furnished by the launching States is not identical in form and contents. The United States, for example, supplied information on the objects launched by it as well as information on decaying satellites. The designation of objects follows that established by COSPAR as an international designation. Information was provided on the date of launching, the launched vehicle, the apogee, the perigee and other technical information. It also contains what is called the Satellite Category and this category is divided into four categories: (a) development of space flight techniques and technology; (b) space research and exploration; (c) practical applications of space technology; and (d) non-functional objects.

The USSR has submitted information on USSR launchings in chronological order using code or popular names for payloads, e.g., Cosmos 188, Molinya I, Zond 6, and so on.

This information covers the date of launching, the perigee and the apogee as well as the purpose of launching, such as for investigation of the upper atmosphere and outer space research for biology, meteorology, and so on.

The French Government, in submitting information on its launchings, used the international designation of COSPAR as well as code names, e.g., France I. The Italian Government used the code names San Marco I and San Marco II. The Australian Government used the code name WRESAT.

In resolutions adopted since the establishment of the "Registry", the General Assembly: "Notes with appreciation that, in accordance with General Assembly resolution 1721 B (XVI) of 20 December 1961, the Secretary-General continues to maintain a public registry of objects launched into orbit or beyond on the basis of information furnished by Member States".

The United Nations is not the only organization engaged in the registration of launchings. There are other organizations which gather and disseminate information on this matter. Under the programme of the International Geophysical Year, three world data centres were established. These are World Data Centre A in the United States, World Data Centre B in the USSR and World Data Centre C in Great Britain. These were established to collect data from numerous observational programmes and to make such data accessible to interested scientists and organizations. In this connexion COSPAR has set up a "Guide to Rocket and Satellite Information and Data Exchange".

NASA's Goddard Space Flight Centre issues periodical reports reflecting data computed and compiled by the Smithsonian Astro-Physical Observatory. Another example is the Royal Aircraft Establishment in the United Kingdom, which also is concerned with collecting information on the various launchings. Some specialized magazine periodic publications collect and publish information on launchings.

The system of registration with the United Nations has been a subject of comment by several member States in the Committee on the Peaceful Uses of Outer Space and particularly in this Legal Sub-Committee. These comments were made on several occasions and in particular on the occasion of the consideration by the Legal Sub-Committee of the Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space and in the current consideration of the draft convention on liability. Of course, I do not need to go into this question as the distinguished delegates are fully aware of the comments made during the previous sessions of the Sub-Committee and recorded in its summary records.

## Appendix V

### UNOFFICIAL LIST OF TOPICS PREPARED BY THE SECRETARIAT FOR INFORMATIONAL PURPOSES AT THE REQUEST OF THE LEGAL SUB-COMMITTEE

- \*1. The study of the legal and related implications of the current and foreseeable developments in the field of direct broadcast from satellites (Sweden, transmitted to the Secretariat at the current session). g/ The elaboration of a convention on the use of direct broadcasting for the promotion of the ideals of peace, friendship and co-operation of peoples, for the promotion of social and cultural progress of mankind (Romania, transmitted to the Secretariat at the current session, cf. A/AC.105/C.2/SR.113, pp. 14-15).
2. Consideration of the draft convention on the registration of objects launched into outer space for the exploration or use of outer space (France, A/AC.105/C.2/L.50/Rev.1; A/AC.105/C.2/L.45).
- \*3. Utility of the elaboration of the legal principles on which the creation and functioning of space communications should be based (Czechoslovakia, A/AC.105/C.2/L.46; cf. Japan, A/AC.105/C.2/SR.83, p. 16).
4. Rules relating to man's activities on the surface of the moon and other celestial bodies (Poland, A/AC.105/C.2/L.53).
5. Study of the question of the legal status of substances, resources and products coming from the moon (Argentina, A/AC.105/C.2/L.54). h/
6. Question of the usefulness and feasibility of establishing an intergovernmental international agency for outer space affairs (Czechoslovakia, A/AC.105/C.2/L.57).
7. Co-ordination of activities of specialized agencies in matters relating to outer space (France, A/AC.105/C.2/SR.104, p. 33; cf. A/AC.105/C.2/L.50/Rev.1).
8. Definition of "space activity" and the drawing up of a list of such activities which require regulation (France, A/AC.105/C.2/SR.80, p. 7, and A/AC.105/C.2/SR.102, pp. 2-3; Argentina, A/AC.105/C.2/SR.112, p. 15).

\* These subjects have been proposed as sub-items of the item entitled "Study of questions relative to... the utilization of outer space and celestial bodies, including the various implications of space communications".

g/ In the note transmitted to the Secretariat it was stated that "The Swedish delegation considers it also desirable that this sub-item be listed among the subjects given high priority in the Sub-Committee's further work".

h/ The Argentine proposal specifies that this question be included in the work of the Sub-Committee at its next session.

9. Regulation of space traffic (Italy, A/AC.105/C.2/SR.112, p. 7): avoidance of interference among space vehicles and between space vehicles and aircraft (Official Records of the General Assembly, Fourteenth Session, Annexes, agenda item 25, document A/4141, part III, paras. 16 and 32); prevention of pointless occupation of orbits and frequencies (France, A/AC.105/C.2/SR.80, p. 10; cf. Official Records of the General Assembly, Fourteenth Session, Annexes, agenda item 25, document A/4141, part II, paras. 69 ff.).
10. Protection of satellites from damage or destruction (Czechoslovakia, A/AC.105/C.2/SR.80, p. 15; cf. Argentina, A/AC.105/C.2/SR.113, pp. 11-12).
11. Interference harmful to radiocommunications in the launching and/or the operation of a space object (Argentina, A/AC.105/C.2/SR.113, p. 11).
12. Formulation of a body of rules for the frontiers between outer space and air space (India, A/AC.105/C.2/SR.83, p. 7).
13. Study of safeguards against contamination of or from outer space with a view to formulating appropriate international standards (Official Records of the General Assembly, Fourteenth Session, Annexes, agenda item 25, document A/4141, part III, para. 29; cf. France, A/AC.105/C.2/SR.80, pp. 10 and 11).
14. Enunciation of a principle to the effect that States are entitled to protection from certain effects which the use of outer space by other States might have on their territory (France, A/AC.105/C.2/SR.80, p. 11).

#### ANNEX IV

##### Conclusions of the Working Group on Direct Broadcast Satellites

(Excerpts from the reports of the Working Group on its first and second sessions)

##### Report of the first session

8. A summary table is reproduced below containing comparative data on the estimated costs and dates of availability of various elements of those direct satellite broadcasting systems that have been selected as examples in annex 3 to this report. The costs of the satellites themselves are not included, however, because they are likely to vary greatly. The relatively modest cost of the earth stations transmitting to the satellite has also not been included. Taking the cost of existing unaugmented receivers as a reference, and assuming mass production of the order of a million or more units, the extra cost per receiving installation is estimated as being of the order of:

- (a) For direct-to-home television broadcasting using augmented receivers: \$US40-\$US270;
- (b) For television broadcasting to community or collective receiving arrangements: \$US150.

Clearly, where reception at a very large number of locations is envisioned, the increase in cost in receiving equipment can amount to very large sums; for example, if 10 million home television receivers were already in use, the cost of "augmenting" them for satellite reception could be from \$400 million - \$2,700 million.

9. The following general conclusions emerge from this review; all assume that appropriate frequency allocations will have been made; with regard to any of the suggested operational systems, the importance of further prior experimentation cannot be stressed too highly:

(a) While it is considered that satellite technology has reached the stage at which it is possible to contemplate the future development of satellites capable of direct broadcasting to the public at large, direct broadcasting television signals into existing, unaugmented home receivers on an operational basis is not foreseen for the period 1970-1985. This reflects the lack of technological means to transmit signals of sufficient strength from satellites;

(b) Direct broadcast of television into augmented home receivers could become feasible technologically as soon as 1975. However, the cost factors for both the earth and space segments of such a system are inhibiting factors. For example, the cost to the home owner/consumer who wishes to augment his home receiver (and antenna), while not precisely measurable at this time, appears to be at least \$40 (not including cost of installation) and may be considerably more expensive, depending in part, for example, on the frequency employed. Many other factors

enter into the cost equation, and in countries lacking large numbers of existing conventional television receivers completely different cost figures apply. As to the space segment, the development and launching of the powerful - therefore heavy - transmitters, which are not yet within the state-of-the-art, involve considerable expenses, which cannot be estimated at this time; the development costs might run as high as \$100 million. Therefore, it is most unlikely that this type of system will be ready for deployment on an operational basis until many years after the projected date of feasibility;

(c) Direct broadcast into community receivers could be close at hand. Technology currently under development might allow this in the mid-1970's. Such a system is considered to be less expensive to launch than one intended for reception directly in people's homes. It will also be easier to establish and less expensive for locations where the radio noise level is low.

10. The uncertainty which attaches to the development of appropriate technology, the selection of system combinations, the numerous trade-offs involved among elements of systems, the cost factors, the radio frequency aspects and other parameters for direct broadcasting all suggest that it is desirable that Member State administrations continue their studies of the design of direct broadcasting systems and conduct appropriate experiments with a view to improving the future planning and operation of such systems and to ensuring the optimum use of the radio-frequency spectrum. All the relevant results of these studies and experiments should be contributed to the International Radio Consultative Committee (CCIR) of ITU which is the competent international body for establishing the technical basis for the ITU World and Regional Administrative Radio Conferences which must, of necessity, provide the basic regulatory framework within which satellite broadcasting would operate.

11. It is also necessary that the radio-frequency requirements of direct broadcasting from satellites be fully and urgently considered by ITU and that the necessary provisions be made for this service at the forthcoming World Administrative Radio Conference on Space Services, if direct broadcasting from satellites is to be accommodated on an operational basis.

12. From the discussion the Working Group notes that international co-operation is necessarily an important factor in establishing satellite systems for direct broadcasting.

13. The Working Group wishes to stress the fact that information contained in this report is subject to revision on the basis of further knowledge and should be viewed in this light.

Summary table  
Estimated costs and dates of availability of illustrative television  
satellite broadcasting systems

	800 MHz AM	800 MHz AM	800 MHz FM	12 GHz AM	12 GHz FM	800 MHz FM*	
Satellite weight (useful, in orbit) (in kg.)	350-450	1050-1200	250-300	~3200	300-400	-	1000 km. coverage zone
Satellite cost	-	-	-	-	-	-	
Launch cost (\$US million)	8-12	20-25	8-10	>30	8-12	-	
Date of availability	1977-1978	1978-1980	1977	1982-1985	1975	-	
Cost of "augmentation" equipment (in production quantities of \$US1 million)**	\$40	\$40	\$65	\$250	\$270	-	
Satellite weight (useful, in orbit) (in kg.)	650-750	~3200	300-400	?	500-600	750-900	2000 km. coverage zone
Satellite cost (\$US million)	-	-	-	-	-	15	
Launch cost (\$US million)	12-16	>30	8-12	?	12-16	12-16	
Date of availability	1975-1976	1982-1985	1975	?	1977-1979	1975	
Cost of "augmentation" equipment (in production quantities of \$US1 million)**	\$40	\$40	\$65	\$250	\$270	150***	
Satellite weight (useful, in orbit) (in kg.)	1900-2100	?	650-750	?	1500-1700	-	3200 km. coverage zone
Satellite cost	-	-	-	-	-	-	
Launch cost (\$US million)	20-30	?	12-16	?	20-30	-	
Date of availability	1978-1980	?	1975-1976	?	1980-1985	-	
Cost of "augmentation" equipment (in production quantities of \$US1 million)**	\$40	\$40	\$65	\$250	\$270	-	

Noté: The quality of television pictures obtained would be equivalent to average accepted terrestrial service or better, except in the first example, where it would be lower.

\* Single channel community or collective receiving arrangements, three TV channels transmitted from satellite.

\*\* These are 1966 estimates.

\*\*\* This is a present estimate.

49. The Working Group notes that in the case of direct broadcasts from satellites for community television intended for purely domestic coverage, a Government, while bound to fulfil its international legal obligations, will be able to adopt such regulations as it considers appropriate. In this situation there would be few international, co-ordination or control problems. At the stage of direct broadcasting into unaugmented home receivers for domestic coverage, limited problems of unintentional national spill-over might arise. For regional or global coverage into community receivers, a significant degree of control by individual Governments would still be possible. In the case of direct broadcasting into unaugmented home receivers, this control will be much more difficult. But in any case, early and continuous international co-operation will be necessary. Some delegations thought that the passage from one phase to the other will most probably be progressive and the problems to be solved will not be markedly different in nature but only in intensity, while others disputed this view.

50. The Working Group concludes that there is substantial potential in the long run for the application of direct broadcasts from satellites in the interests of all mankind. In the view of the Working Group, there is a need for bilateral and multilateral, including regional, international co-operation leading to the strengthening of international arrangements. While recognizing that substantial potential exists for the use of direct broadcasts from satellites, difficulties may none the less be encountered. It will of course be necessary to seek wide international co-operation and orderly progress in all related fields.

51. The Working Group notes that there is no international institution which has the competence to take action in all these fields. It therefore believes that the United Nations, and in particular its Committee on the Peaceful Uses of Outer Space, should sustain the interest it has now shown in co-ordinating activity in the field of direct broadcasts from satellites, and, where appropriate, make suggestions on regulatory procedures. It considers that the Committee on the Peaceful Uses of Outer Space is the most appropriate body to co-ordinate and keep under review in a comprehensive fashion the activities of international institutions and to keep Members of the United Nations informed in a general way of all relevant developments. It also recognizes the important role which individual international organizations such as ITU and UNESCO have to play in their particular fields of competence.

52. The Working Group considers that even though the technical feasibility predictions contained in its first report indicate that a number of the problems discussed may not come to a head for some years, nevertheless there is a need to continue studies in the intervening period with a view to completing, where possible, satisfactory international arrangements. It believes in particular that the Committee on the Peaceful Uses of Outer Space should consider closely the following matters.

(1) Considerations related to technical aspects

53. The Working Group, at its first session, discussed in detail the role of ITU in space broadcasting and arrived at useful conclusions in paragraphs 10 and 11 of its report. The Working Group now notes with satisfaction the actions subsequently taken by the Administrative Council of the Union in setting a date and agenda for the Second World Administrative Radio Conference on Space Communications in 1971. This Conference will take up the questions relating to space broadcasting as included in its agenda and will consider frequency allocations and related technical matters such as efficient use of orbits, power, band-width and other associated matters.

54. The Working Group believes that member States of ITU should be urged to present in their proposals for the Second World Administrative Radio Conference on Space Communication their radio frequency and associated requirements of direct broadcasting in order to enable the Conference to consider the appropriate provisions under which services may be subsequently established.

(2) International legal questions

(a) General legal framework

55. The Working Group notes the existence of a number of international legal instruments which would apply to direct broadcasts from satellites, including the United Nations Charter, the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, and the applicable provisions of the ITU Convention and Radio Regulations. The Working Group also notes the existence of other relevant principles contained in resolutions of the United Nations General Assembly. A number of other possible principles were suggested by some delegations.

56. The Working Group believes that the Committee on the Peaceful Uses of Outer Space should recommend to the United Nations General Assembly that the Committee undertake further study of legal questions which might relate to direct broadcasts from satellites.

(b) Protection of copyright and neighbouring rights

57. The Working Group considers that international agreements concerning copyrights and neighbouring rights in connexion with direct broadcasting of television programmes via satellites require particular and urgent expert study by the competent international agencies, *inter alia*, by UNESCO and the International Union for the Protection of Industrial Property (BIRPI), in co-operation with the future users of direct broadcast systems, particularly the broadcasters. The international organizations concerned should be requested to prepare reports and studies for the attention of the Committee on the Peaceful Uses of Outer Space.

(c) Protection of broadcasts

58. The Working Group considers that the Committee on the Peaceful Uses of Outer Space should commend to the attention of the meeting of governmental experts on international arrangements in the space communication field convened by UNESCO the need for protection against unauthorized use of television programmes broadcast via satellites. The Working Group also considers that UNESCO and BIRPI should be requested to inform the Committee on the Peaceful Uses of Outer Space of progress in this field.

(3) Content of broadcasts

59. The Working Group considers that considerable difficulties lie in the way of producing a generally acceptable code which might govern the content of direct broadcasts from satellites, having regard to the different standards of programme acceptability which exist in different States; these standards having a close relationship to the levels of accepted social customs and practices in respective States. Nevertheless, it considers that future study might be conducted as follows.

(a) Political

60. The United Nations Committee on the Peaceful Uses of Outer Space should continue to examine the political aspects of direct broadcasts from satellites, being guided by the purposes and principles embodied in the United Nations Charter and likewise by the resolutions of the General Assembly concerning the peaceful uses of outer space.

(b) Cultural and social

61. The Working Group suggests that UNESCO be requested to keep the Committee on the Peaceful Uses of Outer Space informed of all developments of interest to the Committee in UNESCO's particular fields of competence relating to direct broadcasts from satellites, especially in studies and projects on national development, education and cultural exchanges.

62. The Working Group recognizes that the question of cultural and social standards embodied in national legislations affects such matters as libel, slander, obscenity, violence or horror, right to privacy, and a number of related problems. It suggests that these matters be further studied by the Committee on the Peaceful Uses of Outer Space in consultation with UNESCO and other appropriate bodies.

(c) Commercial aspects

63. The Working Group considers that the range of issues involved in the commercial field suggests that the Committee on the Peaceful Uses of Outer Space retain an interest in the study of these questions. Information from UNESCO and the broadcasting organizations and other appropriate sources could be of value.

(4) International co-operation

(a) Broadcasters

64. The Working Group notes the role that broadcasting organizations are playing in developing new patterns of co-operation in broadcasting, using existing means of telecommunications, including satellites, which could be significant for future direct broadcasting from satellites. The Working Group feels that these developments could be studied with due attention.

(b) Developing countries

65. The Working Group, noting the special value of direct broadcasting into community receivers for developing countries, strongly believes that direct broadcasting from satellites can make an effective contribution to meeting the needs and the particular interests of developing countries. The appropriate international agencies, such as FAO, ITU, UNESCO and WMO, and UNDP, should further study these needs and interests and provide information and, in conformity with their established procedures, appropriate assistance to developing countries in this regard. The hope was also expressed that States would do the same.

(5) Future of the Working Group

66. In the light of the above report and conclusions, the Working Group is of the opinion that the Committee on the Peaceful Uses of Outer Space should consider whether the Working Group should continue to assist the Committee in the further study of the particular questions which the General Assembly might decide require further attention by it. The Working Group believes that it could, if continued, play a useful role in helping to co-ordinate and study various matters related to direct broadcasts from satellites as outlined in the conclusions of its reports.

# ANNEX V

## Administrative and financial implications of the proposals contained in the report of the Scientific and Technical Sub-Committee on the work of its sixth session (A/AC.105/55)\*

### Statement by the Secretary-General in accordance with rule 154 of the rules of procedure of the General Assembly

1. The recommendations of the Scientific and Technical Sub-Committee are contained in its report (A/AC.105/55) and are reproduced as annex II of the present report. Those giving rise to financial implications are: (a) the appointment of a qualified individual whose full-time tasks would be to promote the practical applications of space technology (*ibid.*, para. 24) and to prepare a comprehensive assessment relating to requests for assistance in connexion with practical space applications (*ibid.*, para. 27); and (b) the organization and servicing of panel meetings which the United Nations might be required to convene (*ibid.*, para. 26).

2. The proposal contained in paragraph 24 of the Sub-Committee's report recommends that the Secretary-General proceed at an early date to appoint an individual whose full-time assignment would be: (a) to maintain liaison with all components of the United Nations system in order to keep abreast of all efforts as well as opportunities for information and assistance in the field of practical applications of space technology; (b) to serve as a point of contact for all Member States seeking information and assistance with regard to pertinent United Nations or other proposed programmes; and (c) to prepare a comprehensive statement of the requirements for assistance in connexion with practical space applications, and the ways of meeting requests for such assistance, together with an indication of the magnitude of the administrative, technical and financial involvement. It is proposed that this individual would be appointed only on a short fixed-term basis, it being the idea to allow for his replacement at frequent intervals to ensure the availability of current expertise.

3. Accordingly, the Secretary-General has based the following estimates on the assumption: (a) that the individual would be appointed for a term of not more than one year; (b) that he would be recruited at the D-1 (Principal Officer) level; (c) that it would be necessary to provide him with adequate secretarial assistance which would have to be recruited; and (d) that he would be required to travel to initiate contacts and maintain liaison as required. The estimated costs would be as follows:

\* The contents of this statement were presented to the Sub-Committee at its sixth session in document A/AC.105/C.1/L.27.

<u>Salaries and common staff costs</u>	<u>US dollars</u>
Travel on recruitment of professional staff member, dependants, and installation costs . . . . .	4,000
Salaries (D-1 and G-3) . . . . .	36,000
Common staff costs (dependency allowances, medical insurance and pension fund contributions, etc.) . . . . .	6,600
<u>Sub-total</u>	<u>46,600</u>
Travel on official business . . . . .	2,500
<u>Total</u>	<u>49,100</u>

4. The proposals contained in paragraph 26 of the report relate primarily to the Sub-Committee's involvement in arranging meetings of panels, whose membership would be comprised of national contacts who will have been designated by Governments, in accordance with the recommendation contained in paragraph 25 of the report. Should the panel meeting be organized by bodies other than the United Nations, the Secretary-General understands that the sole function of the United Nations would then be to communicate to the national contacts information on the meeting and to stimulate interest in their attending it.

5. However, should the United Nations be required to organize and service such a panel meeting, the related costs are estimated to amount to \$2,000 for cost of travel of substantive staff (if the meeting is held away from Headquarters) and \$8,500 for conference servicing costs in respect of each meeting.

6. The Secretary-General would like to draw the Sub-Committee's attention to the penultimate sentence of paragraph 26 of the report, which reads as follows:

"It is the Sub-Committee's hope that normally such activities /panel meetings/ as it or the Committee on the Peaceful Uses of Outer Space might approve on an ad hoc basis would be of limited expense and could be funded by the agencies involved without the need in each instance of seeking formal approval by the General Assembly at its annual sessions."

The Secretary-General would inform the Sub-Committee that any proposed activity to be undertaken by a specialized agency would undoubtedly require the approval of the legislative body of the agency concerned. As far as the United Nations itself is concerned, the prior approval of the General Assembly would be required for the appropriation of funds to be expended on any programme of activities proposed by any of its subsidiary organs. It would therefore be necessary for any activities to be programmed at least annually, in advance, so that the related requirements could be included in the budget estimates submitted by the Secretary-General to the Assembly each year.

7. The Secretary-General notes the proposal contained in paragraph 27 of the report, and it would be his intention to arrange for the individual referred to in that paragraph to undertake the comprehensive assessment requested, and the Secretary-General would report to the Sub-Committee at the appropriate time.

8. Should the Committee on the Peaceful Uses of Outer Space and the General Assembly approve the Sub-Committee's recommendations, the Secretary-General would seek the necessary budgetary appropriation to allow for the implementation of the proposals in 1970.