

United Nations
**GENERAL
ASSEMBLY**

TWENTY-THIRD SESSION

Official Records



**FIRST COMMITTEE, 1644th
MEETING**

Tuesday, 17 December 1968,
at 3 p.m.

NEW YORK

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Chairman: Mr. Piero VINCI (Italy).

AGENDA ITEM 24

**International co-operation in the peaceful uses of outer
space: report of the Committee on the Peaceful Uses of
Outer Space (A/7285, A/C.1/979)**

1. The CHAIRMAN: The Committee will now start its consideration of agenda item 24, "International co-operation in the peaceful uses of outer space: report of the Committee on the Peaceful Uses of Outer Space". It has been the normal practice of the Committee, when dealing with this particular item, to address an invitation to the representatives of the specialized agencies to attend the discussion and participate without the right to vote. If I hear no objection I shall take it that the Committee decides to follow that practice.

It was so decided.

2. The CHAIRMAN: At the beginning of our discussion of the item on outer space, it is fitting to note that the second decade of space exploration has already begun, and that as we are meeting, only a few days separate us from the moment when man will be orbiting the moon—something which was beyond human imagination even a few years ago. I should like, in this regard, to congratulate, on behalf of the Committee, the two major space Powers, as well as numerous other countries which are now actually pursuing space research.

3. While space science and technology are thus continuing to make tremendous advances, it is gratifying to note that the peaceful use of outer space is an objective to which all nations can subscribe enthusiastically and is one for which the United Nations sustains a continuing commitment. The permanent interest of the United Nations lies in the peaceful utilization of the scientific and technical achievements in the exploration of outer space for the benefit of all mankind. It was with this purpose in mind that the United Nations convened an international conference at Vienna this past August. The Committee will be glad to note that the United Nations Conference on the Exploration and Peaceful Uses of Outer Space achieved its objective of examining the practical benefits of space exploration on

the basis of scientific and technical achievements and the opportunities available to non-space Powers for international co-operation in space activities of special relevance to the needs of the developing countries.

4. The Committee has before it document A/7285, the report of the Committee on the Peaceful Uses of Outer Space, which refers in detail to the work of the Conference. The highlights of the proceedings of the Conference are in annex II of the report.

5. Having considered the work of the Conference, the Committee on the Peaceful Uses of Outer Space, according to its report, intends to undertake a detailed study of the proposals originating from the discussions there.

6. The Committee will note the various recommendations and proposals made by the Committee on the Peaceful Uses of Outer Space in its report, in particular a proposal in paragraph 27, to set up a working group to study and report on the technical feasibility of communications by direct broadcast from satellites and the current and foreseeable developments in this field. The implications of such developments, especially in the promotion of the social and cultural progress of all peoples, are other relevant questions. The Committee on the Peaceful Uses of Outer Space in its report has also indicated, in paragraph 21, its intention to give serious consideration to the suggestion and views regarding education and training in the field of outer space, as directed by the General Assembly at its last session.

7. In addition, the Committee has indicated its intention to study in detail the proposals made by individual States. In fulfilling international co-operation in the exploration of outer space, the United Nations has taken a great interest in creating a legal régime on outer space. The Committee will recall the 1967 Treaty on outer space and the 1967 international Agreement on return and assistance to astronauts and space vehicles¹ already adopted by the General Assembly and signed by many Member States.

8. The Committee on the Peaceful Uses of Outer Space and its Legal Sub-Committee is continuing to work in this area, in particular, in the drawing up of an international agreement on liability for damage caused by objects launched into outer space, the progress of which is reported in the report before you and the report of the Legal Sub-Committee, reproduced as annex III of document A/7285.

¹ Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, General Assembly resolution 2222 (XXI), annex; and Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space, General Assembly resolution 2345 (XXII), annex.

9. You will also note from the documents before you that Mr. Kurt Waldheim, the Foreign Minister of Austria, has relinquished his duties as Chairman of the Committee on the Peaceful Uses of Outer Space and that Mr. Heinrich Haymerle of Austria has been elected to succeed him. I am sure that I can speak for the entire First Committee in expressing our sincere appreciation to Mr. Waldheim for the outstanding services he rendered as Chairman of the Committee on the Peaceful Uses of Outer Space. Under his leadership, this United Nations body was able to achieve in a short time what we can well consider as landmarks in the history of international co-operation in the peaceful uses of outer space, and his name will be permanently connected with these historical achievements.

10. I congratulate Mr. Haymerle and wish him well in his duties as new Chairman of the Committee on the Peaceful Uses of Outer Space. We are confident that he will keep up the standards set by his distinguished predecessor.

11. Finally, I wish to extend our sincere thanks to the Government of Austria for acting as host to the United Nations Conference and for making the necessary arrangements for the Conference, thus contributing a great deal to its success.

12. Agenda item 24 is now before the Committee for consideration. A draft resolution contained in document A/C.1/L.463 is also before the Committee for its consideration. Bulgaria and Poland have added their names to the original co-sponsors of that draft resolution so that the number of the co-sponsors of the draft resolution is now twenty-six.

13. I will now give the floor to the first speaker on my list, the representative of the Union of Soviet Socialist Republics.

14. Mr. PIRADOV (Union of Soviet Socialist Republics) (*translated from Russian*): The rapid progress being made in the exploration and peaceful uses of outer space is one of the most brilliant manifestations of the scientific and technological revolution. Man's endeavours to conquer outer space are consistently yielding new results, which open up broad prospects for further penetration into the far reaches of the Universe and which are of great importance for the development of science.

15. We are witnessing the realization of a remarkable prediction by a great Russian scientist and pioneer of space science, K. E. Tsiolkovskii, who said, at the very beginning of the twentieth century, that

“... Mankind will not remain forever on earth, but in its search for light and space it will, timidly at first, venture outside the limits of the atmosphere, and will then conquer all space in our solar system ...”.

16. The year 1968, which is coming to its close, witnessed new and outstanding achievements in the exploration and peaceful uses of outer space.

17. Continuing their efforts to conquer outer space, Soviet scientists and technicians celebrated the fiftieth anniversary of the formation of the Soviet State by successfully launching the spaceship “Soyuz-3”, piloted by the cosmo-

naut Georgii Beregovoi. This flight and the experiments carried out by the spaceship “Soyuz-2” which, it will be remembered, was at that time orbiting the earth, were important steps towards evolving spacecraft guided and piloted by man setting up scientifically important space stations.

18. A noteworthy event was the flight and guided re-entry at a predetermined spot of the spacecraft “Zond-6” on its earth-moon-earth voyage, made possible by the high quality of aerodynamic design. Solution of the problem of landing spaceships on earth by applying the latest findings of aerodynamics truly marks a new epoch in space travel. One important result of the flight of the “Zond-6” was that it sent back to earth photographs of the lunar surface which gave scientists a great deal of new and very valuable information. Important data for understanding the processes taking place in the Universe were furnished by experiments carried out at the space station “Proton-4”. Regular launchings are being continued of the “Kosmos” series satellites, which are intended to study the upper atmosphere and outer space.

19. The space exploration activity which is being conducted by the Soviet Union and which is of great importance for all countries is the result of the persevering creative labour of Soviet scientists and workers and of the creative efforts of the entire Soviet people.

20. Other countries, too, have made a substantial contribution to the conquest of space.

21. International co-operation in the exploration and peaceful uses of outer space continued to develop actively during the year. In particular, fruitful co-operation developed between our country and the countries of the socialist confraternity, India, France and a number of other States.

22. The United Nations Conference on the Exploration and Peaceful Uses of Outer Space, held this year at Vienna, deserves special mention, as it was an important landmark in the development of international co-operation. The Conference was the first world forum at which representatives of different countries were able to sum up the progress made by mankind in this important sphere of activity and to exchange views on further prospects of conquering space for man's benefit.

23. The participants at the Conference paid homage to the scientific heroism and self-sacrifice of those who have been opening up the difficult way into space in the interests of progress. It became clear at the Conference that the majority of States want outer space to be a zone of peace and international collaboration and space activities to comply with the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies.

24. The Conference considered the practical advantages of exploration of outer space on the basis of scientific and technical achievements and the possibilities of further development of international co-operation in cosmic activities, taking account of the needs of all interested countries.

25. As A. N. Kosygin, the head of the USSR Government, said in his message:

“Cosmic research not only extends the horizons of science, but opens up as well, at present, new opportunities for the solution of important practical tasks, such as ultra-long-range communications and television, weather forecasting and navigation. Wide prospects are being opened as well for the utilization of space technology in various other fields of human endeavour.” [*A/7285, annex II, section IV.*]

26. The Conference paid serious attention to the possible uses of communication satellites; that is readily understandable, since communication via satellites opens broad and essentially new possibilities for cultural, educational, economic and other development. The Soviet Union is successfully operating communications systems consisting of the “Molnia-1” satellite and a network of “Orbita” earth stations, which enable the inhabitants of the Northern, Far Eastern and Central Asian regions of the USSR, thousands of miles away from Moscow, to view and hear Moscow television programmes. Other countries, too, have been giving priority attention to satellite communication systems.

27. In order more fully to satisfy the needs of developed and developing countries, the Soviet Union and other socialist countries have proposed the creation of “Intersputnik”, a satellite communication system based on democratic principles. “Intersputnik” is a clear manifestation of the desire of the Soviet Union and the other socialist countries to develop broad international co-operation and to ensure that all the peoples of the earth may reap the benefits of space conquest. Only such international co-operation, with the broad participation of different States on an equal footing, can yield the desired results.

28. As I said before, the practical uses of outer space are not confined to communications. It was demonstrated at the Conference that devices in outer space can be very useful in such purely earthly matters as weather forecasting, air and sea navigation, prospecting for minerals, determining the condition of the earth’s vegetation cover, and much more.

29. The work of the Conference also led to a better understanding of the effect of space conquest on international law, and also its economic, social and other consequences.

30. My delegation fully shares the view that the Vienna Conference was an important and useful event in the development of international co-operation, as the Chairman has just said. The results of the Conference are of interest to all countries, regardless of the degree of their technical or economic development.

31. My delegation would like to use this opportunity to express its gratitude to the Austrian Government for the hospitality shown to the Conference and also to the members of the United Nations Secretariat, who greatly helped the Conference to maintain its pace of work.

32. The report of the Committee on the Peaceful Uses of Outer Space [*A/7285*], which is before us, also contains other decisions and recommendations.

33. I should like to comment particularly on the Committee’s work on the elaboration of rules of law relating to space exploration. As everyone is aware, the Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space prepared by the Committee, an instrument of great importance in ensuring safe flights of mankind’s envoys into space, was signed on 22 April 1968 and came into force quite recently, on 3 December [*resolution 2345 (XXII)*].

34. In the course of this year, the United Nations Committee on Outer Space and its Legal Sub-Committee continued to work on an important draft convention concerning liability for damage caused by the launching of objects into outer space. The Sub-Committee’s efforts resulted in progress, and many important provisions were agreed upon.

35. To be brief, I will merely mention that general agreement was reached on, and specific formulations were drafted for, provisions relating to the application of the principle of objective (absolute) liability and exemptions from liability, joint liability in the case of a joint launching of an object into outer space, liability for damage caused by one space object to another and to third parties, and a number of other provisions. Of great importance is the fact that the Sub-Committee succeeded in attaining agreement on the need to extend the draft convention to damages caused not only on earth and in the earth’s air space but also in outer space, on the provision that there can be no exemption from liability in cases of unlawful activity, and on the establishment of liability in space on the basis of the principle of being at fault.

36. Because of practical difficulties, the Committee was regrettably unable to complete its work on the text of the convention. Every effort must now be made to complete the formulation of the convention so that it may be submitted for consideration and approval by the next session of the General Assembly. The results of the Committee’s last session and the exchange of views in the course of the twenty-third session of the General Assembly give reason to hope that the task is not insuperable and that it will be successfully completed.

37. Of great interest from the point of view of the new opportunities opened up by the uses of outer space are such items on the Committee’s agenda as the definition of outer space and the utilization of outer space and celestial bodies, including the various implications of space communications. Special attention and support should be given to Czechoslovakia’s proposal concerning the elaboration of the legal principles on which the creation and functioning of space communications should be based [*A/7285, annex III, appendix II*]. My delegation agrees that the Committee should continue its comprehensive examination of this important and highly complex problem.

38. In the Committee on Outer Space, my delegation did not oppose the recommendation to set up a working group to study and report to the Committee on the technical feasibility of communications by direct broadcasts from satellites and the current and foreseeable developments in this field, the implications of such developments, and on social, cultural, legal and other questions. The activity of this working group is of interest, and will no doubt be of considerable practical value.

39. On the whole, my delegation is ready to support the conclusions and recommendations contained in the report of the United Nations Committee on the Peaceful Uses of Outer Space.

40. Mr. HILDYARD (United Kingdom): My delegation welcomes the report of the United Nations Committee on the Peaceful Uses of Outer Space published last week and circulated as document A/7285. I should like also to repeat our appreciation of the report of the Legal Sub-Committee in annex III of the report, which was considered by the eleventh session of the main Committee in October 1968.

41. Since the First Committee discussed outer space and all its aspects last year, there have been great new achievements in the exploration of outer space and we stand on the brink of others even more spectacular and far-reaching in their implications. We have seen the very successful and efficient circumnavigation of the moon by the Soviet spacecrafts Zond-5 in October and Zond-6 last month. I am glad that British scientists were associated in these experiments to some extent through the observations made at the time at Jodrell Bank. There was also the successful manned flight by a Soviet astronaut in November. In the same month there took place the great feat of the United States three-man space flight "Apollo 7". We now all await the next and greatest venture, "Apollo 8", due to start a few days from now, and we wish every success to all concerned in it.

42. Coming back to earth, so to speak, 1968 has seen useful progress at the Vienna Conference on outer space in publicizing the practical applications of space activities for the benefit of all, particularly the less developed countries. My delegation believes that the Scientific and Technical Sub-Committee should meet in due course to consider in detail the various proposals made as a result of the Vienna Conference and to report back on them to the main Committee, after consultations with other interested United Nations agencies.

43. It is only appropriate that in this debate delegations should both define their attitudes to the projects and proposals under consideration by the Committee and also give at least an outline of the activities in space of their own country. I should like to say a few words about the recent British activities in our domestic space programme, and on various collaborative space programmes in which the United Kingdom has participated actively.

44. The United Kingdom started its own sounding rocket programme in 1957 and since then over 160 Skylark rockets have been launched from Woomera in collaboration with the Australian authorities. More recently, a few of these rockets have been fitted with sun-pointing stabilized heads, and there is under development a much more sophisticated star-pointing stabilization unit for future Skylark launchings. The extensive use of the unstabilized Skylarks has produced much scientific information, and the sun-pointing stabilized Skylark will make work of similar potential possible.

45. On the basis of these years of experience in the use of sounding rockets, the United Kingdom has been able to participate usefully in collaborative programmes with

several countries. One recent successful programme was with the National Aeronautics and Space Administration of the United States (NASA) and Pakistan, when the United Kingdom provided the payload for Nike Apache rockets launched from the Sonmiani range in Pakistan. Preparations are under way for a programme to be carried out jointly with Sweden and the United States from the European Space Research Organisation's range at Kiruna in northern Sweden. Plans are being made and equipment being provisioned for further collaborative programmes using small rockets and probably involving launchings from the ranges at Thumba in India and Sonmiani in Pakistan.

46. In the field of regional co-operation, the United Kingdom is a founder member of the European Space Research Organisation and has participated fully in all that Organisation's programmes. United Kingdom experiments have been included in all the satellites so far planned and in just over half of the seventy or so rockets launched to date. The Organisation's second satellite was successfully launched on 3 October 1968; United Kingdom scientists contributed four out of the eight experiments on board. Further United Kingdom experiments will be included in the payloads of the succeeding European Space Research Organisation's planned satellites, including the TD-I experimental satellite project.

47. I should like to refer to the hope expressed by the Secretary-General in the introduction to his annual report of September 1968,² that joint practical ventures bringing the benefits of space exploration to all nations should be encouraged. The Thumba Equatorial Rocket Launching Station in India is such a joint practical venture, and is already engaged in useful work. The sounding rocket station at Mar del Plata in Argentina is mentioned by the Secretary-General as another possible joint venture if, as my delegation sincerely hopes, its eligibility for United Nations sponsorship is endorsed by the group of scientists who are to visit the station during 1969. We welcome the reference to this important Argentinian project in operative paragraph 8, section B, of the draft resolution before us today [A/C.1/L.463]. My country remains keen to offer a scientist to be included in that group when the time comes.

48. I now turn to matters in the field of wider international co-operation in the exploration of outer space. The most important event of 1968 in this field was the opening for signature earlier this year of the Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space [General Assembly resolution 2345 (XXII), annex]. Since then, some seventy countries have signed the Agreement. My own country joined the Soviet Union and the United States of America in ratifying the Agreement on 3 December, on which day it entered into force. We hope that those States which have not yet acceded to or ratified the Agreement will do so as soon as possible.

49. By contrast, however, progress on another major instrument stemming from the outer space Treaty has been disappointingly slow, that is a draft Convention on liability for damage arising from objects launched into space. A number of drafts were before the Legal Sub-Committee,

² See *Official Records of the General Assembly, Twenty-third Session, Supplement No. 1A*, para. 37.

including the recent, and in our view, constructive draft tabled by the Indian delegation [*see A/7285, annex III, appendix I*]. Several contentious issues remain to be resolved, however, before we can reach agreement on this subject which is an essential step towards developing a legal régime for outer space. My delegation would like to stress the need for speedy progress and we hope that before the next meeting of the Legal Sub-Committee, which in our view should take place early in 1969, Governments will give serious consideration as to how some headway can be made on the six major points of difference which remain to be settled.

50. On the substance of the matters still to be settled in the liability convention, my delegation hopes that Governments will reconsider their positions on the law applicable to measure of damage and unresolved aspects of joint liability, concerning which we submitted proposals in the light of the course of the debate. We do not believe that there can be any widespread support for the argument that the law of the launching State should govern the measure of compensation paid in another country, especially when the launching State may in some cases be at fault. We are glad to note that some progress has been made on the important question of the relationship between international organizations and the convention, and it was encouraging to hear, at the main Committee's fifty-fifth meeting in October [*see A/AC.105/PV.55*], that the Soviet Union may now be in a position to accept the provision in the Indian draft on this point. We hope that it will soon be possible to reach agreement to include nuclear damage in the convention. But it is still more essential to have adequate procedures to determine the compensation due. My delegation believes that it is useless, on this very practical question, to have rules, however good, if there is no effective way of ascertaining the sum due under them in the unhappy event that damage occurs.

51. The problem of definition of outer space was referred by the lawyers to the Scientific and Technical Sub-Committee last autumn [*see A/7285, annex III, para. 13*], but the scientists were unable to agree upon any scientific or technical criteria upon which a definition for a lower limit for outer space could be based. The difficulties of formulating such a definition are clearly very great. In the light of the very rapid pace of space technology, my delegation does not believe it practical at this stage to define a lower limit for outer space, or indeed desirable to attempt to do so. In a few years it may be possible to determine with some certainty the lowest point in a satellite's orbit. We talk now in terms of fifty miles above the surface of the earth, but technically it is not inconceivable that satellites will orbit the earth at a lower level. We believe that further studies of the scientific and technical background should continue.

52. We have somewhat similar reservations about being too specific at this stage in making recommendations on the utilization of outer space.

53. On the question of direct broadcasting by satellites, we support the decision reached by the main Committee in October [*see A/7285, paras. 27-29*] on the proposals then put forward by the representatives of Sweden and Canada [*see A/AC.105/PV.55 and 58*]. This decision is recorded in

section B, operative paragraph 5, of the draft resolution before us today. My delegation favours the establishment of a working group to study and report to the main Committee on the technical feasibility of communications by direct broadcasting from satellites, on the current and foreseeable developments in this field, and on the implications which are likely to be important and far-reaching. In our view, it would be desirable for the working group to meet early next year.

54. We also believe that the working group should study the technical and scientific aspects of the problem first, in close association with the International Telecommunication Union and other specialized agencies as appropriate. On the basis of such studies, the working group could then consider other aspects of the question for transmission to the main Committee in time for it to report to the twenty-fourth session of the General Assembly. The United Kingdom wishes to make a full contribution to the studies made by the working group, and would like to participate at specialist level in all aspects of its work.

55. In his remarks to an informal meeting of the main Committee last week to discuss texts of draft resolutions, the representative of Sweden recalled in most timely fashion the doctrine to which we have all subscribed, that communication by means of satellites should be available to all nations on a global and non-discriminatory basis.

56. Concern in some quarters at the prospect of possibly competing international communications systems has been so marked of late that my delegation is happy to see a specific reminder of our obligations under General Assembly resolution 1721 D (XVI) included in section B, operative paragraph 4, of the draft resolution before us today, of which the United Kingdom is a co-sponsor.

57. We also welcome the letter to the Secretary-General from the representative of the United States, which has been circulated in this Committee as document A/C.1/979 of 12 December 1968. This contains a most useful and timely clarification of the United States position on arrangements for attendance at the forthcoming conference on definitive arrangements for the International Telecommunications Satellite Consortium (INTELSAT).

58. In conclusion, I should like to express the confidence of my delegation that it will be possible to reach agreement in February 1969 on definitive arrangements which will reflect the greater use of INTELSAT made by many of the smaller countries which are or would like to become members.

59. The CHAIRMAN: Before giving the floor to the next speaker may I remind the Committee that, on the basis of the schedule which I outlined and which was accepted by the members of the Committee at a previous meeting, we should dispose of the item under consideration not later than tomorrow afternoon. I would therefore respectfully request representatives who wish to speak on this item to inscribe their names with the Secretariat and, in particular, to be prepared to speak tomorrow morning, so that we may conclude our deliberations on this item by voting in the afternoon.

60. Mr. HAYMERLE (Austria): Permit me, Mr. Chairman, at the outset to express to you our gratitude for the kind

words of appreciation which, in your opening statement, you addressed to Mr. Kurt Waldheim, former Chairman of the Committee on the Peaceful Uses of Outer Space and now Foreign Minister of Austria. I shall not fail to convey your message to him.

61. May I also thank you for congratulating me upon my election as Chairman of the Committee on the Peaceful Uses of Outer Space. I have sincerely appreciated your kindness and I need not tell you how highly I shall value your assistance and that of my other colleagues in the fulfilment of our common task.

62. The Committee is taking up the question of the peaceful uses of outer space at a time when another year marked by further progress and achievements in the exploration of outer space is nearing its end. It is also a moment when, after new advances by both the United States of America and the Soviet Union in their space programmes, we seem to be on the eve of another milestone in the history of man's entry into outer space, namely, the first manned space flight to the moon.

63. Against the background of these spectacular achievements by outer space science and technology, it is a source of satisfaction to us that also within the framework of the United Nations it has been possible, during the last year, to work effectively in many of the fields where the United Nations has been entrusted with an active role in promoting international co-operation in the peaceful uses of outer space.

64. It is only natural that in these first years of the space age primary attention is focused on the actual exploration of outer space and, therefore, on technical and astronomical achievements. Increasingly, however, we are beginning to realize the impact of this new age on our everyday life and the potential benefits which outer space research and technology can bring, and is bringing, to the solution of many of the economic, technical and social problems which we are facing today. Yet it is perhaps in these practical benefits that most of our nations, many of which are not actively engaged in ambitious programmes of space exploration, will find their principal interest, and it is precisely in this field that the United Nations has found a significant role to play.

65. In the past year, this activity was highlighted by the first United Nations Conference on the Exploration and Peaceful Uses of Outer Space, to which Austria had the privilege of being host in August 1968. The main objective of the Conference, as the Committee will recall, was the examination of the practical benefits to be derived from space research and exploration, and in particular the question of how non-space Powers, and especially the developing countries, could enjoy these benefits.

66. The Committee now has before it the report of the Committee on the Peaceful Uses of Outer Space and the documentation prepared by the Secretary-General on the organization and the results of the Vienna Conference [A/7285]. It is a source of satisfaction to us that this documentation reflects a general consensus that the Conference, the first of its kind convened by the United Nations, was able successfully to accomplish the tasks entrusted to it, and that its deliberations have proved to be useful.

67. I should like to thank the speakers who preceded me in this debate for the kind words of appraisal which they have found for my country and my Government in connexion with the preparation and organization of the Conference.

68. On our part, we should like to take this opportunity to express our appreciation to all those responsible for the organization of the Conference, in particular to the members of the Secretariat, to all the countries and international organizations which participated in it, and to the more than 200 scientists and experts who presented to the Conference the scientific papers which formed the basis of its work.

69. I believe that, in the context of our present debate, I need not go into the details of the work accomplished by the Conference. I believe it has shown the great potential benefits which outer space science and technology can bring to all nations. We trust that it has made many countries more aware of these potentialities. It will thus have contributed towards social, economic and technical progress in many areas of the world, and in particular in the developing countries. What is of importance now is that the work started at the Vienna Conference be continued, and we are confident that the United Nations and its Committee on the Peaceful Uses of Outer Space will be able to play a significant role in this respect.

70. We note that a number of interesting proposals have already been made in the Committee to follow up the work of the Vienna Conference. I refer in particular to the suggestions made in the Committee on the Peaceful Uses of Outer Space at its fifty-third meeting by the representative of India that a small advisory group be constituted and that action be taken to arrange panel meetings, fellowships, surveys and technical assistance [see A/AC.105/PV.53]. Further proposals called, for instance, for meetings of the Committee on the Peaceful Uses of Outer Space from time to time at regional centres [ibid.] where these meetings would arouse a great deal of interest in the countries of that particular region. Other proposals urged arrangements for expert services through a United Nations centre for information and consultation in the field of practical applications of space technology [see A/7285, para. 23]. We are sure that all proposals conducive to bringing the knowledge of space benefits to the non-space Powers and the developing world will receive serious consideration by the Committee on the Peaceful Uses of Outer Space and by the Assembly.

Mr. Galindo Pohl (El Salvador), Vice-President, took the Chair.

71. A further suggestion made at the Vienna Conference has retained our interest, namely, the report by the Secretary-General on the possible use of communications satellites by the United Nations³ at no cost or at very reduced rates. We believe that the Secretary-General should feel encouraged to inquire of the existing communication satellite systems as to the possibilities in this respect.

72. A second aspect of international co-operation in the field of outer space in which the United Nations has been

³ A/CONF.34/127.

able, over the past years, to play an active and constructive part is the progressive development of the law of outer space. The work of the Committee on the Peaceful Uses of Outer Space has already led to the elaboration, first, of a declaration of principles [*General Assembly resolution 1962 (XVIII)*], later, of a Treaty governing the activities of States in the exploration and peaceful uses of outer space, which entered into force last year, and finally, of the Treaty on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space.⁴

73. We are happy to note that only a few days ago—to be exact, on 3 December—this latter agreement, which was endorsed by the Assembly last year, has now also entered into force.

74. We regret that similar progress has not been possible in developing another agreement which has been under consideration in the Committee on the Peaceful Uses of Outer Space for a number of years and which we, for our part, have always considered as of equal importance and equal urgency, namely, a draft agreement on liability for damage caused by the launching of objects into outer space. We had hoped that that draft agreement would have been ready for consideration by the Assembly at our present session, and we regret that this is not the case. However, we are aware of the depth and intricacy of the problems involved, and we know that very sincere efforts to reach agreement on the text of the treaty have been conducted throughout the past year. We trust that the Committee on the Peaceful Uses of Outer Space will continue to devote particular attention to that question. It is our sincere hope that the draft agreement on liability will be ready for consideration by the Assembly at its next session.

75. There are a number of further recommendations in the report which the Committee on the Peaceful Uses of Outer Space has submitted to the Assembly. We refer in particular to the establishment, by the Committee, of a special working group on direct broadcasts from satellites [*see A/7285, paras. 27-29*]. We believe that this is indeed a question of considerable importance, and we recall that it also received attention at the Conference on outer space at Vienna. We feel that it would therefore be useful if the Committee on the Peaceful Uses of Outer Space, through a special working group, would consider the various implications of this question. The procedure suggested in the report of the Committee appears sound, namely, that the first task of the working group would be to study the technical feasibility and characteristics of direct broadcasting from satellites, and that it would then continue its work on the basis of the studies devoted to the technical aspects of the problem.

76. We note from the report that the working group would be composed of interested members of the Committee and that representatives of specialized agencies would be invited to participate in the work of the group. We feel that this is a good way to proceed. We also hope that all other States Members of the United Nations and members of the specialized agencies that take an interest in this matter will make their contribution to the studies of the working group, as recommended in the report submitted by

the Committee on the Peaceful Uses of Outer Space [*ibid., para. 32*].

77. In conclusion, I should once again avail myself of this opportunity to extend to all countries engaged in the exploration and the peaceful use of outer space our sincere congratulations on the accomplishments achieved in their space programmes during the past year. These congratulations will naturally go, in the first place, to both the Soviet Union and the United States, but they go equally to the great number of other countries that have joined man's great venture into outer space, either in space programmes of their own, in joint space programmes with other countries, or through the research undertaken by their scientists and technicians. It is indeed our combined efforts which will enable man to assert his place in outer space and which will ensure that outer space will become, and remain, an area of peace and co-operation.

78. Mr. GLINNE (Belgium) (*translated from French*): In organizing this year in the wonderful and hospitable capital of Austria the first Conference on the Exploration and Peaceful Uses of Outer Space, the United Nations has made a decisive breakthrough in the field of international co-operation in space and has given a new direction to its work. The Conference, in fact, enabled the participants and those who studied the documentation compiled by the Secretariat of the United Nations to realize the considerable influence that the progress of space technology already exercises and the upheavals that it will doubtless provoke in many fields during the years to come. It demonstrated above all that this influence and these upheavals would interest not only a particularly advanced handful of countries, but that advantages could accrue to all countries, regardless of the degree of their economic or technical development. In brief, it has developed in an admirable way a central theme, namely, space technology at the service of mankind, and two subsidiary themes, namely the development of international co-operation, thanks to which the non-space Powers will be given the opportunity to participate in activities concerned with the exploration of space, and the part that the United Nations can play in order to ensure that all States Members will benefit from the advantages of exploration and of space technology, particularly in the fields of development and education.

79. The year 1967 marked the tenth anniversary of the space age, and we must express our admiration of the grandiose discoveries and the spectacular progress achieved in that time in the field of the exploration of space, both as regards the techniques of rockets and satellites and scientific research.

80. That progress is, first of all, due to the work of two countries which are being called more and more the "super-Powers", not only because of the political sway they exercise in the world arena, but also because of the extraordinary technical headway they have made in comparison to other countries.

81. This was expressed so strikingly by Mrs. Myrdal, during the debate on the problems of disarmament, when she said:

"The prospect of a monopoly—or, rather of a duopoly—for the super-Powers in regard to satellites, to

⁴ See foot-note 1.

exploitation of the resources of the sea-bed to the utilization of nuclear explosives for mining and civil engineering projects on a grandiose scale, is but a corollary to the so-called 'technological gap', which is now before our eyes widening to a gulf." [1609th meeting, para. 72.]

82. To their achievements of previous years, the United States and the Soviet Union have added in 1968 new and increasingly spectacular exploits in the field of the discovery and conquest of outer space. The Belgian delegation, together with others, warmly congratulates them on those achievements and is happy to express its admiration to them.

83. At the same time it would like to repeat the warning uttered in the statement of the representative of Sweden which I have just quoted:

"... what is called for when we note this major trend in world history towards a power concentration on the part of the great—and I believe everybody reads these signs on the wall—what is needed is, more than ever a constructive dialogue with untiring attempts to establish true international co-operation between the 'haves' and the 'have-nots'. We must get them to agree, through truly integrated efforts, to international arrangements in order that mankind as a whole may share the benefits of progress." [Ibid., para. 75.]

84. The Vienna Conference showed, in the field of the uses of outer space, possibilities for such international co-operation through which new technology would be profitably put to use in ways that would benefit all mankind. As the Minister for Foreign Affairs of Austria, Mr. Kurt Waldheim, the President of the Conference and until recently the Chairman of the Committee on the Peaceful Uses of Outer Space, said, at the opening meeting on 14 August 1968:

"It is not unreasonable to assume, therefore, that the second decade of the exploration and use of outer space might now be marked by an increased emphasis on these practical applications, which will directly benefit all countries of the world, contribute to a solution of their economic and social problems and help to bridge the gap between the industrially advanced countries and the developing nations. The possibilities in this respect seem very promising, indeed."

And he added further on:

"To convert them into reality, however, will require a climate of genuine international co-operation." [A/7285, annex II, chap. VI.]

85. It is clear from an examination of the reports on the opening meeting and on the technical meetings of the Conference, as prepared by their respective Chairmen [ibid., chap. VIII], that the Conference fully achieved the goals set for it by the Assembly. It made possible an examination of the practical advantages of space programmes on the basis of scientific and technical achievements. It gave an opportunity to the non-space Powers to acquaint themselves with the possibilities offered them in the field of international co-operation in activities in outer space, particularly as regards the needs of the developing

countries. The results achieved by the Conference warrant as wide a distribution as possible among the seventy-eight countries that attended it and among those also which were not able to participate. On this point, Belgium fully endorses the practical recommendation made in the report of the Committee on the Peaceful Uses of Outer Space [A/7285, para. 17] regarding the way in which such distribution to Governments, educational institutions, learned societies and the public at large may be assured.

86. But it is not enough to issue memoranda on the fundamental questions dealt with by the Conference and to prepare summaries of them. The Conference was but a first step in the development of international co-operation, a single milestone on a long and arduous road. The objective, even though it may not be explicitly stated in the mandate given to the Committee on the Peaceful Uses of Outer Space in resolution 1472 (XIV), should none the less be that all countries should benefit from the practical advantages of space exploration, and even more from space technology, regardless of their degree of economic and technical development.

87. Various proposals were made, including one by the delegation of India [see A/AC.105/PV.53], to ensure that the work of the Conference should be pursued. Those proposals warrant careful consideration by the Scientific and Technical Sub-Committee. One of the suggestions concerns the granting of scholarships for study in the field of space science and technology in the developing countries and the countries that have not as yet made advances in space activities. A recommendation to that effect would be very useful in completing consideration of the suggestions and points of view advanced with regard to professional training in the field of the exploration and peaceful utilization of outer space, a study which has already been requested a number of times by the General Assembly—I have in mind resolutions 2130 (XX), section III, paragraph 1; 2223 (XXI), paragraph 5; and 2260 (XXII), paragraph 11.

88. The importance of the methods used for training in the field of space must be obvious to us all. The results of the Vienna Conference have made even clearer the great direct and practical interest that many countries have in carrying out training programmes and scholarships for completion of studies in the fields where space techniques are being applied more and more frequently.

89. These fields are many and varied and include meteorology, navigation, geodesy, remote sensing, medicine and instruction.

90. In the particularly fascinating field of the exploration of outer space, research in space and the discovery of the physical laws of the universe, international co-operation takes on a decisive importance.

91. But, as stated in the interim report submitted by a study group of the National Academy of Sciences of the United States, published at the beginning of this year:

"Great new adventures and explorations have often, through history, concealed beneath the initial excitement and novelty the hard core of real utility and practical benefit to mankind. The exploration of Space is such a great adventure."⁵

⁵ Quoted in English by the speaker.

The report goes on to emphasize that technology had first to make practical the orbiting of satellites—"rockets and orbital technologies"—while the experts have "understandably been most directly interested in the contribution of scientific knowledge". The report continues:

"Yet it is quite possible that a relatively unpublicized part of the space programme, that directed toward realizing the practical benefits to be derived from it, will ultimately prove to be the most significant to mankind."⁵

The report then gives examples of the enormous economic advantages of space applications offered to society in the field of weather forecasting, and in geology through the more rapid discovery of mineral resources.

92. With regard to satellite telecommunications and the role of the United Nations, it must be admitted that thus far it is unquestionably true that the use of satellites for communications has made the greatest strides.

93. Artificial satellites in fact offer mankind the possibility of establishing instant communication all over the world. That possibility opens up tremendous prospects as far as the scope of information media, acceleration in educational processes and intensification of cultural exchanges are concerned. As early as December 1965, UNESCO took the initiative of calling together a group of experts to examine the role of communications satellites and the problems they presented. I should like to quote the following extract from the memorandum submitted to that meeting by Arthur C. Clarke, which brings out the revolutionary character of the prospects opened up by communications in space:

"'Comsats'", he writes in his memorandum entitled *Prediction, realization and forecast*, "will end ages of isolation, making us all members of a single family . . .

"Thanks to a few tons of electronic gear 23,000 miles above the Equator, ours will be the last century of the Savage; and for all mankind the Stone Age will be over."⁶

94. It is imperative that the use of space communications should be based on the principles of international co-operation.

95. In this connexion, the Belgian delegation would like to recall certain preambular paragraphs of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, the text of which was endorsed in General Assembly resolution 2222 (XXI).

96. The States Parties to the Treaty have stressed the vast possibilities opened to mankind by man's discovery of outer space. They have taken the view that the exploration and utilization of this field should be carried out for the benefit of all peoples, regardless of the state of their economic or scientific development. The States Parties to the Treaty have expressed their desire to "... contribute to broad international co-operation" in the belief that "such co-operation will contribute to the development of mutual understanding and to the strengthening of friendly relations between States and peoples."

97. The organization of satellite communications should be based on such principles of co-operation, the use of

which in the case of satellites for radio broadcasting deserves thorough study.

98. The paper presented by the Secretary-General of our Organization on the question of the use of communications satellites by the United Nations⁷ deserves special mention.

99. In its resolution 1721 D (XVI), the General Assembly on 20 December 1961 noted "the potential importance of communications satellites for use by the United Nations and its principal organs and specialized agencies for both operational and informational requirements."

100. During the years that have elapsed since the unanimous adoption of that resolution, space telecommunication techniques have rapidly developed, thus making it possible to apply that resolution and subsequent ones, namely resolutions 1802 (XVII), section IV and 1963 (XVIII), section LV. It seems highly desirable that the Organization should take advantage of such technical progress in the exercise of its world responsibilities, the success of which is vital to all of us. It would make it possible to speed up the political interaction of nations, to strengthen the ability of the United Nations to ensure maintenance of peace, and finally to make sure that all the peoples of the world give the United Nations the understanding and support which it needs in order to achieve in the best possible circumstances the objectives set forth for it.

101. With regard to internal communications in the Organization, the use of communications satellites at certain critical moments might be of vital importance, since it might considerably increase the degree of effectiveness and accuracy of the efforts it is making in order to maintain international peace and security. To refuse to take full advantage, in the field of communications, of the revolutionary advantages of communications satellites would mean seriously curtailing the effectiveness of United Nations activities.

102. The paper of the Secretary-General envisaged international agreements to ensure that the United Nations would have free and open access to satellite communications under conditions and within limits to be specified. Naturally, before we could decide on the question of the privileges requested by the Secretary-General, the methods of applying his proposal should be thoroughly studied. The assistance of the International Telecommunication Union would be particularly valuable in this field, and we would suggest that the question should be submitted for consideration by that specialized agency of the United Nations.

103. Before considering the report submitted to this session of the General Assembly by the Committee on the Peaceful Uses of Outer Space, of which Belgium has the honour of being a participant, I should like to mention very briefly the interest of my country in space research and in the peaceful uses of this pioneer science.

104. We know that small and middle-sized nations could hardly hope to become independent space Powers, and that is why my country, whose national programmes and activities have been set forth in document A/AC.105/L.36/Add.2, decided to define its space policies within the

⁶ See *Communication in the space age*, UNESCO, 1968, p. 32.

⁷ Document A/CONF.36/L.27.

framework of agreements that comprise several European countries and has been actively participating in the work of European organizations in this field since their inception.

105. Belgium is a member of ELDO, the European Launcher Development Organization, an intergovernmental organization created in 1961 by a group of European countries that decided to pool their resources and to provide Europe with launching devices that would allow it to play an independent role and to put into orbit satellites and other space vehicles purely for peaceful purposes.

106. It is also a member of ESRO, the European Research Organization set up in 1962 by a group of countries that felt that they should join their efforts in the field of spatial scientific research in order to prevent Europe's lagging ever further behind the United States and the Soviet Union.

107. Belgium has given ESRO a station for the purpose of obtaining telemetric data and for satellite tracking. The REDU station in Belgium is part of the European telemetric and tracking network.

108. The operational programme of ESRO includes a number of scientific experiments proposed by various European scientific groups to be included in the loads of sounding rockets and satellites.

109. Once again the very reason for the existence of this organization is to carry out projects that in their scope and technical aspects are beyond what independent European States could achieve in their own national programmes.

110. This collective programme therefore deals mainly with pure or basic research, although its field of activities does cover applied research, education in space science and satellite techniques, and information, and might be extended to include applied space technology, which is extremely important from the practical and economic standpoint.

111. In fact, although the creation of applied utilitarian satellites had not been included in the programme of the organization, it undertook at the end of 1966, for the benefit of the European Conference on Satellite Telecommunications, to carry out a study to assess the technical and financial implications of a possible programme of telecommunications satellites.

112. That Conference is not an organization of the same nature as ESRO or ELDO, nor is it a legal entity. Its aim is to enable Europe to play an appropriate role in the future world satellite telecommunications network. Belgium has contributed to the work of that Conference from the very beginning, namely, since its first meeting in 1963.

113. Finally, a co-ordinating committee was set up in 1966 to harmonize the rocket possibilities offered by Europe, i.e., by ELDO, with European satellite projects (ESRO), and possibly also with the needs of the European plan for telecommunications satellites. The chairman of that committee was nominated Secretary-General of the European Space Conference which recently met in Bonn, and which received some notice in the international press. The Belgian delegation is happy to be able to point out that it was thanks to the good offices of Mr. Theo Lefevre, the

Belgian Minister for Scientific Policy and Programming and the constructive work of the Inter-Ministerial Committee of Scientific Policies presided over by another Belgian, Dr. J. Spaye, that a compromise was reached which enabled us to envisage the future of European space policies with cautious optimism.

114. Such forms of co-operation in space matters forming part of regional organizations, apart from the fact that they are necessary for countries like mine, in so far as they intend actively to participate in the exploration of outer space, are quite in keeping with the aims of the Treaty on Outer Space, and it is for this reason that Mr. Segers, the Belgian Minister of National Defence, stated last year before this Committee that "... at the legal level, international organizations for space co-operation are justified in demanding recognition of their importance and a guarantee of protection of their interests. In other words, in any new agreement international organizations must expressly be given a status that is fully in keeping with their goals and with the contributions they are making or are likely to make to man's efforts in outer space." [1501st meeting, para. 84.]

115. I come now to consider the work done by the Committee on the Peaceful Uses of Outer Space in the course of this year that is now drawing to a close, and the terms of reference which it should receive for 1969.

116. First of all, I should like to refer to paragraphs 26 to 32 of the report that deals with the creation of a new body: a working group on direct broadcast satellites. I have mentioned already the great importance of satellite communications.

117. At present we foresee the possibility of using radio and television broadcasts to reach areas with sparse populations whose ground networks are underdeveloped or weak, and even vast desert or ocean regions. The importance of such possibilities is obvious. Within the International Telecommunication Union, the International Consultative Committee on Radio Communications is studying the technical aspects of the question from the point of view of exploitation, for example as regards the sale of modestly priced receivers.

118. But we can also see all the social, cultural, legal and political implications of the setting up of a network of direct broadcast satellites.

119. The sixth report of the International Telecommunication Union [A/AC.105/L.37], dealing with telecommunications and the peaceful uses of outer space, points out that "the problem of the reception of broadcast emissions, including television, from satellites by domestic receivers was given attention ..." but that the "means to satisfy many of the technical requirements are not yet evident, so that such a service will require considerable study before it can be realized".

120. If, for our part, we admit that direct broadcast satellites are hardly likely to be commercialized for a number of years, it is still true that the techniques necessary for that purpose already do exist. It would thus seem normal for the United Nations to consider the possibilities for its application.

121. In the view of Belgium, the creation of a working group to study this problem would appear to have the merit of being effective. The group could first of all identify the main technical possibilities of direct broadcasting from satellites and could then examine its legal, political, social and cultural consequences.

122. The tasks that the Belgian delegation would like to see fulfilled in 1969 in the scientific and technical fields seem to me to have been sufficiently commented upon in the comments I have made on the Vienna Conference. I shall mention in particular:

First, the study of the memoranda submitted to the Conference, as well as the consideration of proposals on the action to be taken following on the work of the Conference with a view to preparing a plan of action;

Secondly, the study of the programmes for education and fellowships in the field of the exploration of outer space and the applications of space technology;

Thirdly, the study of technical problems which arise in connexion with direct broadcast satellites and, in particular, of the report that the working group will submit on this question;

Fourthly, a new examination of the question of scientific and technical criteria which will allow us to give a precise and lasting definition of outer space.

123. In the meantime, the Belgian delegation endorses the programme assigned to the Scientific and Technical Sub-Committee as it appears in paragraphs 19 to 23 of the report of the Committee on the Peaceful Uses of Outer Space. It considers that that Sub-Committee—which did not hold any meeting in 1968—should meet in the course of 1969 to study these different questions.

124. Now that I am about to abandon the world of science to enter the world of law, may I recall certain apprehensions that were aroused in the world of experts by the Soviet experiment *Venera IV*, with regard to a possible biological contamination of the planet Venus by terrestrial micro-organisms, despite the fact that, in view of the high temperatures prevailing on the surface of that planet, the possibility of the survival and growth of such organisms would seem to be excluded. If, however, similar techniques were to be used for the landing on Mars, which is planned for the early part of 1969, the possibility that such micro-organisms could reach that planet and survive and multiply in the Martian environment cannot be excluded. This would seriously jeopardize any future biological investigations, namely, any scientific research aimed at finding indications of indigenous life on that planet. In the name of science, may we take the liberty of reminding the Soviet Union of the terms of the Treaty on Outer Space which stipulates, in article IX, that:

“States Parties to the Treaty shall pursue studies of outer space, including the Moon and other celestial bodies, and conduct exploration of them so as to avoid their harmful contamination . . . and, where necessary, shall adopt appropriate measures for this purpose.”
[Resolution 2222 (XXI), annex.]

125. The main task of the Legal Sub-Committee in the course of its session in June 1968 was to finalize a draft convention on the liability for damages caused by the launching of objects launched into outer space, a draft which, according to the terms of General Assembly resolution 2345 (XXII), should be submitted to the present session.

126. The report of the Sub-Committee [A/7285, annex III] draws attention to the proposals and the working papers submitted by a number of delegations. Amongst them is a draft submitted by the Belgian delegation, a third revised version designed to meet in a constructive manner the views of other countries.⁸

127. The report enumerates the texts and the principles on which agreement has already been reached; it notes that “some progress” was made in the course of the seventh session as well as in the sixth, but agrees that “There remained important elements on which *rapprochement* of views was necessary”.

128. That being the case, it may be worth drawing the attention of this Committee to a few important questions on which no *rapprochement* has so far been achieved. These questions are the following:

First, the question of nuclear damage;

Secondly, the problem of any limitation of liability for damage;

Thirdly, the question of obligatory resort to third-party settlement;

Fourthly, the question of recognition of international organizations as subjects in law;

Fifthly, the problem of the law to be applied in the assessment and distribution of damages;

Sixthly, the problems raised by joint liability.

129. I should like to point out that this list of six points is not exhaustive; it clearly shows, in our view, that much work remains to be done.

130. The representative of Belgium, Mr. Schuurmans, has already had the opportunity, in the Committee on the Peaceful Uses of Outer Space, to express the bitterness—the word is not too strong—felt by the Belgian delegation at this stage of stagnation in the conversations, which the report bears out very strikingly. He stated that, from that aspect, the report of the Legal Sub-Committee seemed to him:

“... frankly disappointing, because it points up the importance . . . of the disagreements encountered on the way which must lead to the drafting of another convention acceptable to us all. The impression must not be created that now that the agreement on assistance has become a reality the space Powers, or even some of the

⁸ See *Official Records of the General Assembly, Twenty-second Session, Annexes*, agenda item 32, document A/6804, annex III, appendix II.

space Powers, will relax their efforts or display less eagerness in their attempts to complete negotiations on the conclusion of a second subsidiary agreement.” [A/AC.105/PV.59.]

And Mr. Schuurmans added that the Belgian delegation would not desist from the action it had persisted in following in that Sub-Committee.

131. The report of the Legal Sub-Committee recommends that a meeting of that Sub-Committee should be planned as soon as it is considered that substantive progress can be made in the drafting of a convention on liability.

132. In its report the Committee on the Peaceful Uses of Outer Space recommends that the Legal Sub-Committee should meet early in 1969 to complete its work in drafting a convention on liability.

133. We would recall, too, that the Legal Sub-Committee also adopted two recommendations [A/7285, annex III, para. 16/]. One of these would enable it to study the results of the examination by the specialized agencies and the IAEA of the particular problems that have arisen or may arise from the use of outer space; the other is for the purpose of resuming the study of questions regarding the definition of outer space.

134. Belgium feels, therefore, that the work of the Sub-Committee should be vigorously pursued in the course of 1969. But the preparation of a draft convention on the liability for damage caused by the launching of objects into outer space should, my delegation feels, be given priority treatment.

135. Already in the course of the eighteenth session, the General Assembly in resolution 1963 (XVIII), adopted on 13 December 1963, requested the Committee:

“...to arrange for the prompt preparation of draft international agreements on liability for damage caused by objects launched into outer space and on assistance to and return of astronauts and space vehicles;”.

136. In 1968, that is five years later, the Committee on the Peaceful Uses of Outer Space has still not been able to submit a final text for approval by the General Assembly. Belgium will certainly not oppose a recommendation that the preparation of this convention, which we had hoped would be completed at the same time as the Agreement on the Rescue and Return of Astronauts [resolution 2345 (XXII), annex/], should be pursued during the session of the Legal Sub-Committee in 1969. However, such a recommendation is not enough. The difficulties posed by the complex problem of liability can be resolved only if all the partners are filled with the political determination to come to an agreement. And when I say “all partners” I am thinking particularly of the two great space Powers to whom I should like to make a pressing appeal that they show more understanding towards those who may one day become the innocent victims of accidents for which they would be responsible.

137. By his outstanding achievements in the conquest of outer space, man has given his universe a new dimension. There can be no doubt that the use he will make of this new field now within his grasp will have a decisive bearing on the future of mankind.

138. In the course of the years that have elapsed the General Assembly has expressed the will of the peoples of the world that the exploration of the universe should be undertaken in the interests of all mankind, that international co-operation should be made available for all applications of space technology, and that technical progress should go hand-in-hand with the preparation of the indispensable norms of international law in outer space.

139. I have endeavoured to point out that the balance sheet of United Nations activities in outer space in 1968 shows a marked credit thanks to the promising prospects opened up by the Conference in Vienna, but there is still one shadow over the scene that my delegation could not pass over in silence, namely, that in the legal field progress has been modest, indeed negligible, and this has been a disappointment to us. Here too, we must get out of the rut without delay.

140. Belgium still nurtures the hope that this renewal of effort will come soon. It hopes that the recent statements made by the space Powers show that they are determined to undertake very soon measures that will make it possible to achieve an equitable settlement of the problems in which we, among many others, are deeply interested.

141. Mr. SHAW (Australia): The delegation of Australia wishes to make a few brief comments on developments during 1968 affecting international co-operation in the peaceful uses of outer space. As the time remaining before conclusion of the work of the First Committee is short I shall address myself only to a few particular matters which seem to warrant special consideration. Before I do so, however, I would join with those who have paid tribute to the work of the former Chairman of the Committee on the Peaceful Uses of Outer Space, the Foreign Minister of Austria, Mr. Waldheim, who served the Committee with such skill and such good humour. We welcome also as his successor, my friend and colleague, and indeed my neighbour, Mr. Haymerle.

142. The report of the Committee on the Peaceful Uses of Outer Space contained in document A/7285 and the records of the proceedings of the Outer Space Committee held from 15 to 18 October 1968 [A/AC.105/PV.53-59/ include a good deal of information on the Conference on the Exploration and Peaceful Uses of Outer Space held in Vienna earlier this year. Australia was one of a large number of countries which participated in the work of that Conference and presented papers to it. The successful culmination of the Conference was due in large measure to the considerable amount of time which the Committee on the Peaceful Uses of Outer Space and the General Assembly devoted to its preparation. My delegation wishes to be associated with others who have expressed their thanks to the Austrian Government for providing the facilities for the Conference. Scientists from all over the world met at Vienna to pool their scientific knowledge in many fields covering telecommunications, meteorology, navigation, international co-operation and other subjects. A vast amount of material was available at the Conference and, following its dissemination to Member Governments of the United Nations and specialized agencies, it will need careful evaluation by them.

143. At its session in October 1968, this was recognized by the Committee on the Peaceful Uses of Outer Space,

which decided to request the Scientific and Technical Sub-Committee to consider the wide range of proposals made concerning follow-up action to the work of the Conference. Section A of the draft resolution contained in document A/C.1/L.463, now before the First Committee, which Australia is glad to co-sponsor, sets out the suggested programme for further consideration of these proposals during the next year. Australia looks forward, with other Governments, to expressing its views in the Scientific and Technical Sub-Committee when it meets in 1969.

144. The Australian delegation welcomes the attention which has been given by the Committee on the Peaceful Uses of Outer Space to the question of direct broadcast satellites. It supports the recommendation that a working group be established to consider all aspects of this matter with the terms of reference set out in the draft resolution and referred to in paragraphs 26 to 32 of the report of the Committee.

145. Australia will follow the work of this working group with the closest attention and hopes to be in a position to contribute a working paper to it. The delegation recalls the understanding of the Committee on the Peaceful Uses of Outer Space by its Chairman, that the schedule of meetings of the various subsidiary bodies of the Committee in 1969 will make it possible for the working group on direct broadcast satellites to meet in advance of the Scientific and Technical and Legal Sub-Committees. This will enable the two Sub-Committees to make such contributions to the study on direct broadcast satellites as they are able to do in the light of the initial studies by the working group.

146. Australia has continued to give close attention to international co-operation in the telecommunications field through its participation in the work of the International Telecommunications Satellite Consortium (INTELSAT). Work will soon begin in Australia on the third satellite earth station to participate in the activities of that body. This station will be established in South Australia and should be ready at the end of 1969 to work with INTELSAT III when it is placed in stationary orbit over the Indian Ocean. Australia values its participation in the activities of INTELSAT and its various bodies together with other States which have availed themselves of its open membership. We note that the definitive arrangements for INTELSAT will be discussed at a plenipotentiary conference to commence on 24 February 1969 and we welcome the possibility that not only will members of INTELSAT participate, but that in the light of the open invitation to all Members of the United Nations and its specialized agencies that will be extended, there will be widespread attendance at this plenipotentiary conference.

147. When the General Assembly adopted resolution 2345 (XXII) at its twenty-second session, by which it commended to the attention of Governments the annexed Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space, it was clearly in the minds of most Members of this Organization that further progress was necessary with all possible speed towards the conclusion of an effective agreement on liability for damage caused by the launching of objects into outer space. General Assembly resolution 2345 (XXII) called for the urgent preparation of this

agreement not later than the beginning of the twenty-third session of the General Assembly. The Australian delegation to the Legal Sub-Committee meeting in Geneva in June 1968 sought to participate constructively with other delegations to fulfil this mandate by the General Assembly. We were disappointed that it was not possible at that time to reach any substantial measure of new agreement on this subject.

148. A number of delegations expressed the view that further progress on a number of central issues would be imperative if a satisfactory liability agreement were to be concluded. Australia joined other delegations in submitting suggestions to the Legal Sub-Committee that a number of questions should be examined as a matter of urgency by Governments.

149. We hope that all delegations, including those which found it difficult to show flexibility at the Geneva session, will reconsider their views on all those questions to enable more progress to be made more quickly next year. We have some reason to believe from recent informal discussions that there is an improved prospect of such progress.

150. In saying this I should like to make two particular points. First, it is generally recognized by all Members of the United Nations that given that there are as yet only a few countries which conduct the bulk of launchings into outer space, the great majority of countries are what might be termed "countries at risk". Australia has participated in a number of co-operative launchings and has itself placed into orbit one scientific satellite, and it recognizes that most countries of the world feel strongly the need for an effective agreement on liability for damage. The Australian Government has given firm support to this view and will continue to do so.

151. The Australian Government continues to believe that the first step in the development of international law affecting the peaceful uses of outer space will only have been accomplished when the outer space Treaty, the rescue and return Agreement and a liability agreement have all three come into force. The outer space Treaty and the Agreement on rescue and return are now in force and it only remains at this stage to conclude an effective agreement on liability for damage. Moreover, the entry into force and the effective operation of both the rescue and return Agreement and a liability agreement will be necessary to maintain a proper balance between the interests of countries which by their activities naturally pose the greatest risks and those which equally require protection against them. In short, the entry into force of both agreements is necessary to maintain a balance between the interest of space and non-space countries.

152. Having made this general point about the relationship between those two agreements, I should like to conclude my remarks by commenting briefly on one aspect of a liability agreement which we feel to be of considerable importance. Our views have been stated before on the unresolved aspect of a liability agreement and these are on the record. We share the view, which is firmly held by many countries and which is directly related to the comments I have just made, that an effective liability agreement for the countries at risk will be one in which those who have little

or no direct advantage from the launching of a space object have certain and precise remedies. The need for a compulsory third party arbitration provision, in the view of my delegation, would seem to be one of the most important, if not the most important, elements in such an agreement.

153. The delegation of Australia believes that the year 1969 will see further progress in all aspects of international co-operation for the peaceful uses of outer space. It remains pledged to continue to contribute to the work of the Committee on the Peaceful Uses of Outer Space and of its subsidiary bodies in order to achieve such progress. We welcome the exploits of the brave astronauts of the United States and the Soviet Union and we express our hopes that the forthcoming Apollo 8 mission will achieve its objectives safely. The first decade of space exploration has filled us all with wonder and with awe. It has also indicated the benefits which could be applied in the interests of mankind from the extraordinary achievements and combined efforts of so many devoted scientists, engineers and astronauts.

154. Mr. SOUZA E SILVA (Brazil): The First Committee examines today the report of the Committee on the Peaceful Uses of Outer Space which is contained in document A/7285. This report includes documentation pertinent to the United Nations Conference on the Exploration and Peaceful Uses of Outer Space held during the summer of 1968 at Vienna. My delegation is very much encouraged by the results reached at Vienna and we are glad to acknowledge that the major cause of this success was the co-operation and hospitality of the Austrian Government and people.

155. In evaluating those results, my delegation fully agrees with the words of the Foreign Minister of Austria, Mr. Kurt Waldheim, in his closing statement when he pointed out:

"Surely, it was not possible for the Conference, in fourteen short days, to find solutions to all the problems which we face at the beginning of the second decade of the space age. No one could have seriously expected that. But I am sure that, on this closing day of the Conference, we can say that we have advanced a first and perhaps not insignificant step on the long and difficult road towards our goal." [*See A/7285, annex II, chap. XII.*]

156. The encouraging results of the Vienna Conference in mapping out the field of peaceful uses of outer space stand in sharp contrast to the lack of any significant progress in the negotiations towards an agreement on liability and in general in the work of the Legal Sub-Committee. It is a matter of regret for my delegation that it has not been possible to respond to the request of the General Assembly contained in resolution 2345 (XXII), operative paragraph 4. I do not intend to go here into specific aspects of the question, but let me express the hope that an early agreement on the subject will be forthcoming in the context of the work of the Legal Sub-Committee, and not outside it.

157. My delegation also believes that the completion of a liability agreement is indispensable to obtain the wider adherence, including that of my Government, that has been asked for in the Agreement on assistance to astronauts. In paragraph 27 of its report the Committee on the Peaceful

Uses of Outer Space endorses the Swedish-Canadian proposal on the establishment of a working group to study and report to the Committee on the technical feasibility of communications by direct broadcast by satellite as well as the current and foreseeable developments in this field and their implications of an economic, social and cultural nature.

158. My delegation gives its full support to this idea as we think it is high time to proceed to productive debate on the question, having in view especially the national interests of the various countries in relation to the communications system that is by definition of a supranational nature. The general progress of space communication creates fresh problems, mainly of a legal character, to which the Committee on the Peaceful Uses of Outer Space should give early consideration so that the new trends in that field may be harmonized with the purposes and principles of the United Nations Charter and do not run counter to the themes of international order and security.

159. My delegation would also like to express its support for the proposals put forward by the representatives of India and Sierra Leone at the eleventh session of the Committee on the Peaceful Uses of Outer Space regarding education and training in the field of the exploration and peaceful uses of outer space [*see A/7285, paras. 22 and 23*]. After all, the real test for international co-operation in outer space is going to be whether it succeeds in promoting the transfer of space science and technology from the space Powers to the developing nations, and whether it will permit the sharing by developing nations of the benefits of the space age. In spite of what has been accomplished, much more can and should be done.

160. My delegation is of the opinion that in its work the Scientific and Technical Sub-Committee should give more emphasis to the study of these aspects of space technology that have more immediate and direct bearing on the development process of developing nations. The proposals of India and Sierra Leone are a step forward in this direction, but my delegation hopes that once they have been satisfactorily disposed of, the Scientific and Technical Sub-Committee will proceed to examine problems such as the prospects opening up for developing nations as a result of earth resources surveys and outer space techniques of practical benefit.

161. As the Vienna Conference documentation indicated, "Advances made in research during the last year have shown the tremendous potential of earth resources surveys from aerospace vehicles" and "the developing countries have in this area the best opportunity to derive practical benefits for their national development" [*ibid., annex II, chap. IX, part IV*]. The report of the Committee on the Peaceful Uses of Outer Space goes on to say, "The applications of satellites to the existing and potential problems of mankind here on the surface of earth are many and real". It adds that they may help to solve such critical problems as food production, water conservation, etc. [*ibid.*].

162. The CHAIRMAN (*translated from Spanish*): All the speakers on this afternoon's list have now spoken.

163. I call upon the representative of the Union of Soviet Socialist Republics.

some remarks in his statement with regard to USSR space programmes. I reserve my right to reply to him later.

164. Mr. PIRADOV (Union of Soviet Socialist Republics)
(*translated from Russian*): The Belgian representative made

The meeting rose at 5.55 p.m.