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COMMITTEE ON THE PEACEFUL USES OF OUTER SPACE

VERBATIM RECORDS OF THE FIFTY-THIRD TO SIXTIETH MEETINGS

Held at Headquarters, New York,
from 15 to 22 October 1968

Chairman:

Mr. WALDHEIM

Austria

Rapporteur:

Mr. SILCS

Brazil

69-35015

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VERBATIM RECORD OF THE FIFTY-THIRD MEETING

Held on Tuesday, 15 October 1968, at 10.30 a.m.

Chairman:

Mr. WALDHEIM

(Austria)

OPENING STATEMENT BY THE CHAIRMAN

The CHAIRMAN: The Committee on the Peaceful Uses of Outer Space reconvenes today against the background of another year marked by continued progress in the exploration and peaceful uses of outer space. The programmes of the two leading space Powers have moved further ahead. The United States during the past year launched three new moon probes, Surveyor V, VI and VII, which succeeded in making soft landings on the moon with scientific equipment to test and analyse the composition of the lunar surface. Several thousand pictures and other scientific information have been transmitted back to the ground stations.

The Soviet Union in April launched its space vehicle Lunar XIV, which became the fourth Soviet moon satellite. Only a few weeks ago the Soviet Union succeeded in sending the Soviet spacecraft Zond V around the moon, returned it to earth, and then recovered it in the Indian Ocean. And as the Committee convenes this morning, three American astronauts are circling the earth in the latest space project. Our best wishes for a successful completion of their mission go to them. Their flight, planned to last for several more days, is certain to bring us significant new scientific and technical data and will help prepare the ground for still more ambitious ventures into outer space.

(The Chairman)

Indeed, it appears that we are approaching the threshold of man's first landing on the moon.

I wish to take this opportunity to congratulate both the Soviet Union and the United States once again for the outstanding achievements which their scientists and astronauts are accomplishing in the exploration of outer space.

The exploration of outer space, however, is by no means confined to the activities of the two leading space Powers. On the contrary, the number of countries actively engaged in programmes of space exploration is constantly growing. We know that already some time ago France established an independent space programme. Today, we take note with pleasure that in November of last year Australia launched its WRESAT I satellite, and thus became the fourth nation to place a satellite in orbit. A steadily growing number of countries are participating in joint space programmes and scientists in almost every country of the world are now actively engaged in work connected with outer space science and technology and its repercussions in such fields as medicine, biology and various applications of space technology.

The past year has also seen notable activities within the framework of the United Nations. In this connexion, I should mention, above all, the first United Nations Conference on the Exploration and Peaceful Uses of Outer Space, which took place in Vienna in August of this year. The documents which the Committee now has before it bear evidence of the work which the Conference was able to accomplish. I believe that our Committee, in which the initiative for convening this Conference originated and which was one of the important organs in the planning stages of the Conference, can be truly proud of the results of this initiative.

We had set as the objective of the Conference to examine the practical benefits to be derived from space research and exploration and the extent to which non-space Powers, and in particular the developing countries, could enjoy these benefits. It was possible, at the Conference, to show the truly promising possibilities in this respect. In the field of communications, the Conference called attention to new concepts and solutions to intercontinental telecommunication traffic through the use of communication satellites. It also pointed to the fact that, in the particular situation of many developing countries, the use of

(The Chairman)

communication satellites could facilitate the establishment of modern communication systems and thus make an important contribution towards rapid progress in the educational, economic and social development of these countries.

Evidence presented at the Vienna Conference showed equally promising prospects in the field of weather observation and forecasting, through the use of meteorological satellites, and in the field of navigation and international sea and air traffic, through the use of navigational satellites. The Vienna Space Conference thus demonstrated the potentialities of the practical application of outer space research and technology, and indicated the possibilities for further action.

In recalling the results of the Conference, I wish to take this opportunity to express our gratitude to all those who have contributed to making the Conference a success. I wish, in the first place, to convey our sincere appreciation to the Secretary-General who, from the very beginning, lent his personal interest and support to the preparation of the Conference. Our gratitude also goes to Dr. Vikram A. Sarabhai, who served as Chairman of the Panel of Experts entrusted with much of the scientific preparation of the Conference, and later as Vice-President and scientific Chairman of the Conference.

Much as we can be pleased with the achievements of the Vienna Conference, we must now bear in mind, however, that the Conference was not a final, but on the contrary, a first step in our efforts to bring the practical benefits of space exploration to all nations, regardless of their degree of technical and economic development, in order to alleviate some of the economic and social problems which they face today.

It seems important that these efforts should now continue with increased emphasis, making use of the momentum created by the Vienna Conference. It is my sincere hope that our Committee will be able to play an active and prominent role in this respect.

In the legal field, our Legal Sub-Committee continued its efforts during the past year to elaborate an international agreement on liability for damage caused by the launching of objects into outer space and pursued its work on questions relating to the definition of outer space and the utilization of outer space and celestial bodies.

(The Chairman)

The report of the Legal Sub-Committee, which the Committee has received, outlines the progress which the Sub-Committee was able to make on these two questions.

The agenda for our present session comprises two main items. In the first place, the report which the Committee has to submit to the General Assembly on the preparation for and the organization and proceedings of the United Nations Conference on the Exploration and Peaceful Uses of Outer Space, in accordance with General Assembly resolutions 2221 (XXI) and 2250 (S-V). In this connexion, I have the pleasure to draw your attention to the documents submitted by the Secretary-General. The second item on our agenda is the report on the work of our Committee and its Sub-Committees, which the Committee will submit to the General Assembly, in accordance with General Assembly resolution 2260 (XXII). In this connexion, I wish to draw your attention to the report of the Legal Sub-Committee contained in document A/AC.105/45. The Scientific and Technical Sub-Committee, as you will recall, did not meet in 1968, in view of the Conference held in Vienna.

I would suggest that we consider both items together and that delegations be free to deal with them either in one statement or, if they wish, by making separate statements on the two items. If I hear no objection, I take it that it is so decided.

It was so decided.

The CHAIRMAN: Before giving the floor to the first speaker at this morning's meeting, I wish to welcome to our midst for the first time the new Permanent Representative of the United States of America, Ambassador Wiggins. We are very pleased to have him with us for this session of our Committee, and we wish him success and all the best for his work in the United Nations.

REPORT OF THE COMMITTEE TO THE GENERAL ASSEMBLY ON THE PREPARATIONS FOR THE ORGANIZATION AND PROCEEDINGS OF THE UNITED NATIONS CONFERENCE ON THE EXPLORATION AND PEACEFUL USES OF OUTER SPACE (GENERAL ASSEMBLY RESOLUTIONS 2221 (XXI) AND 2250 (S-V)): DOCUMENTATION ON THE UNITED NATIONS CONFERENCE ON THE EXPLORATION AND PEACEFUL USES OF OUTER SPACE (A/AC.105/L.44)

REPORT OF THE COMMITTEE TO THE GENERAL ASSEMBLY (GENERAL ASSEMBLY RESOLUTION 2250 (XXII)): REPORT OF THE LEGAL SUB-COMMITTEE (A/AC.105/45)

Mr. PARTHASARATHI (India): We are thankful to you, Sir, for giving us just now a very clear and precise exposé of the work done by the Committee on the Peaceful Uses of Outer Space and the achievements of the Conference on the Exploration and Peaceful Uses of Outer Space, which was held in Vienna in August this year under your distinguished presidency.

My delegation is happy to join you, Mr. Chairman, in welcoming most warmly the new Permanent Representative of the United States of America, Ambassador Wiggins. We wish him every success in his new and arduous assignment. As one journalist to another, may I say that I personally am gratified that he will be my colleague, and I look forward to collaborating with him not only in the work of this important Committee but in all the organs of the United Nations.

The developments in the field of outer space, though breathtaking, are happening at such lightning speed that one takes them for granted, without due appreciation being given to the scientific skill and organization that have enabled these projects to be successful. One such magnificent event has been the sending of Mond 5 around the moon and then recovering it in the Indian Ocean. We felicitate the USSR for its remarkable achievement. The credit -- and our congratulations -- go to scientists of the Soviet Union for achieving this unprecedented circum-lunar voyage, which will no doubt bring a rich harvest of scientific data of invaluable use for future research in this field.

Also, the United States has rocketed a three-man crew, in Apollo 7, on an eleven-day thrilling mission around the earth as a preliminary to a trip to the moon. We congratulate the United States on yet another superb achievement in this field and wish the brave astronauts every success in the fulfilment of their mission.

While we are happy at the tremendous achievements of the USSR and the United States in exploring outer space, which just ten years ago seemed to be beyond our reach and in the realm of science-fiction and fantasy, we do want to emphasize the urgency and desirability of the peoples of the world sharing in

(Mr. Parthasarathi, India)

this exciting adventure and benefiting from the results of the scientific investigation which the two major space powers are conducting. For this purpose, the Conference on the Exploration and Peaceful Uses of Outer Space was convened to assess the practical benefits to be derived from space exploration and to find practical means for the sharing of these benefits by all Member States. Your leadership and guidance, Mr. Chairman, ensured the success of the Conference. We wish to take this opportunity to express our gratitude to you and to the Government of Austria for inviting the Conference to convene in Vienna, for providing excellent facilities for the Conference, and for the hospitality and kindness offered to those who attended the Conference.

My delegation was deeply impressed, not only by the magnitude of the work done by the Conference, but also by the courtesy and friendship shown to it during the meetings. It is our hope that the achievements of the Conference, particularly concerning the significant applications of the practical uses of outer space, which were discussed at the Conference, will not be lost sight of but will be published in the form of a pamphlet so that they can reach as wide an audience of non-specialists as possible, which was one of the objectives of convening the United Nations conference on outer space. We would also suggest that an audio-visual presentation of the achievements of the Conference should be prepared for the same purpose.

At the Outer Space Conference, many important and relevant ideas were discussed and supported, and it is now for us to carry forward the work of the Conference by giving shape and effect to those ideas. The Secretary-General, in his note accompanying the documentation on the Conference, has given pertinent expression to this view by stating that:

"It behoves all of us who are concerned, and in particular the Committee on the Peaceful Uses of Outer Space, seriously to consider the trend and scope of these new ideas, to sift the suggestions made, and to make concrete recommendations concerning the role of the United Nations in the future."

(A/AC.105/L.44, pp. 1 and 2)

In this connexion, I would recall the statement made at the concluding meeting of the Conference, on 27 August, by Dr. Sarabhai, Chairman of the Atomic Energy Commission of India, in his capacity as Vice-President and Scientific Chairman of the Conference. In his statement, he listed many concrete suggestions which

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the Committee on the Peaceful Uses of Outer Space can now usefully consider and decide upon. In his statement, Dr. Sarabhai said that at the United Nations level there was need to look at the current and the forward-looking problems of applications of the uses of outer space in a variety of fields. Drawing upon the experience of the International Council of Scientific Unions (ICSU), he was of the view that a small advisory group of specialists should be constituted to generate new ideas that might lead to the combining of the efforts of various agencies. He said:

"Moreover, there is good scope for some projects to be supported jointly by two or more specialized agencies, as is being done by the International Atomic Energy Agency and the Food and Agriculture Organization of the United Nations. The Outer Space Division of the PSCA could generate a great deal of interest and understanding by arranging specialist panel meetings on specific topics along lines the International Atomic Energy Agency has followed so effectively. These panel meetings, perhaps no more than four per year of fifteen or twenty people, could produce documentation and new ideas on specific applications, which could then be distributed widely. These meetings could be held in different parts of the world in order to generate local interest. And then there is the need for a number of scholarships for nationals of developing countries. I feel that one would need perhaps a hundred per year, for training related to specific applications which a nation wants to undertake. There should be some funds available for Governments committed to certain projects to be able to send their people to institutions run by nations advanced in the subjects concerned. The funds should support travel expenses and maintenance during a period of six months to a year.

He went on to state:

"Another programme of some importance which the United Nations could consider would be to undertake survey missions, on request, from countries or groups of countries to explore the potential of certain specific techniques within the context of local situations. There is need for a modest programme of technical assistance for developing countries to set up facilities like Automatic Picture Transmission. If a country wants to

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construct an APT unit itself, there should be some funds available for taking a scientist or engineer to a place where he could make the first unit. For example, we will be very happy to provide at our Space Science and Technology Centre in India facilities and assistance to those wishing to build such units themselves and then taking them back with them. This type of technical assistance should be geared to specific programmes of immediate benefit where the country itself is interested in making a commitment. United Nations sponsorship, like at Thumba, to multinational co-operative projects for space applications might be very helpful in providing an umbrella for bilateral co-operation."

To recapitulate, we should like to suggest that a small advisory group should be constituted and that action should be taken to arrange panel meetings, fellowships, surveys and technical assistance. It is our hope that the Committee at this session will be able to discuss these matters and make recommendations to the twenty-third session of the General Assembly.

These responsibilities, and others that the United Nations may assume, may make it necessary to strengthen the Outer Space Division of the United Nations. This could be done by giving specialists in various fields assignments with the United Nations for specified periods, say one year, to do specific jobs, so that they can return to their respective departments after finishing their short-term assignments with the United Nations.

The General Assembly, this Committee and the Scientific and Technical Sub-Committee have been considering for many years matters relating to education and training in the field of the exploration and peaceful uses of outer space. It will therefore be useful to recall the various references to these problems: resolution 1472 (XIV), which established the Committee on the Peaceful Uses of Outer Space, contemplated the Committee giving encouragement to national research programmes for the study of outer space and the rendering of all possible assistance and help towards their realization; subsequent resolutions of the General Assembly have emphasized the importance attached by it to these matters.

As early as November 1964, the Scientific and Technical Sub-Committee invited Member States to continue to inform the Secretary-General of facilities for education and training and to include information on the availability of scholarships and fellowships, with specifications of the conditions and details thereof, in appropriate fields related to the exploration and the various peaceful uses of outer space (A/5785). Again, in September 1966, the Scientific and Technical Sub-Committee decided to recommend to Member States which are in a position to do so to increase their efforts to make fellowships and scholarships in the field of space science and technology available to developing countries and those not yet advanced in space activities, either on the basis of bilateral agreements or through other arrangements (A/6431).

The thirty-first report of the Administrative Committee on Co-ordination of 4 May 1965 stated that:

"The question of training is one of the most important facing the United Nations family in the space field and is of direct, practical concern to many countries, particularly in areas such as communications where space technology is already being applied on an increasing scale. What is envisaged by ACC is a relatively modest programme designed to support and, where appropriate, supplement existing programmes. If resources permitted, funds might, for example, be provided to assist in the provision of fellowships, travel to seminars, the organization of training course, etc." (A/AC.105/L.20, para. 72)

In its thirty-second report (A/4191) of 2 May 1966, the Administrative Committee on Co-ordination stated:

"The ACC considers that three types of measures should be envisaged at the international level in order to develop education and training:

- (i) the compilation and dissemination of information on training opportunities;
- (ii) the provision of fellowships and travel grants; and
- (iii) the organization of seminars."

At its twenty-second session the General Assembly, by its resolution 2260 (XXII), requested the Committee on the Peaceful Uses of Outer Space to start at its next session serious consideration of the suggestions and views regarding education and training in the field of exploration and peaceful uses of outer space expressed in the General Assembly and in the Committee.

This is not the first time that suggestions have been made by us regarding panel meetings, fellowships and technical assistance before this Committee. Dr. Sarabhai in a statement in document A/AC.105/C.1/SR.34 made on 22 April 1966 said that the joint fellowship fund suggestion in paragraph 11 of document A/AC.105/C.1/L.14 would also be valuable. It would enable countries with foreign exchange difficulties to take advantage of the excellent opportunities available and would ensure maximum utilization of the many national training facilities and those offered by organizations such as ESRO. My delegation has also emphasized these matters in its statements found in documents A/AC.105/FV.19/Rev.1 and A/AC.105/FV.38.

Many delegations -- for instance, the delegation of Argentina in its statements in A/AC.105/C.1/SR.20 and A/AC.105/FV.29, the delegation of Italy in its statement in A/AC.105/FV.38, the delegation of Romania in its statement in A/AC.105/C.1/SR.29, the delegation of Liberia in its statement in A/C.1/FV.1500, the delegation of the United Republic of Tanzania in its statement in A/C.1/FV.1507, the delegation of Iran in its statement in A/AC.105/C.1/SR.15, the delegation of the United Arab Republic in its statement in A/AC.105/FV.40 -- have stressed the importance of education and training facilities in outer space field at various meetings.

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My delegation would also like to recall the report of the Scientific and Technical Sub-Committee on the work of its fifth session in document A/6804 in which it was stated that the Sub-Committee took note of proposals submitted by Austria, Iran and the United Arab Republic on the desirability of enlarging the "personnel, budget and power" of the Outer Space Affairs Group of the United Nations Secretariat. While we do not wish to make any specific recommendation regarding the strengthening of the Outer Space Affairs Department, we would urge the Committee to accept, in principle, that such strengthening might be necessary in case additional responsibilities are undertaken by the Outer Space Affairs Department.

In the same report of the Scientific and Technical Sub-Committee it was stated that:

"Arising out of this discussion, the Sub-Committee requested the Outer Space Affairs Group to report to the Sub-Committee at its next session on the status of implementation of the recommendations and suggestions made by the Committee on the Peaceful Uses of Outer Space and its Scientific and Technical Sub-Committee and by the General Assembly and the problems faced by the Secretariat in this regard."

(A/6804, annex II, para. 25)

While we are aware that this year the Scientific and Technical Sub-Committee has not met, we should like to know whether the Secretariat has been able to prepare the report asked for by the General Assembly at its twenty-second session and, if not, when such a report will be ready.

My delegation values the continued sponsorship of the United Nations of the International Rocket Launching Station at Thumba. The Government of India has been happy to offer the facilities at Thumba for use by other countries. We are glad to report that, among other countries, Japan and West Germany are now making use of the facilities that have been created at Thumba.

In her message to the United Nations Conference on the Exploration and Peaceful Uses of Outer Space, the Prime Minister of India, Mrs. Indira Gandhi, stated:

"India looks forward to expanding areas of international collaboration and would take initiatives as she has at the United Nations-sponsored International Rocket Launching Station at Trivandrum and at the Experimental Satellite Communication Earth Station."

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In this connexion, I may mention that the Prime Minister of India dedicated the International Rocket Launching Station at Thumba as a United Nations facility on 2 February 1968. The Secretary-General in his message sent on that occasion stated:

"The United Nations for its part has been proud and gratified that under its sponsorship TERLS has turned out to be a great example of international co-operation in the space age and performed a number of desirable and important tasks."

It is our hope that the Committee would recommend to the General Assembly the continuing sponsorship of the International Launching Station at Thumba.

May I now refer to the report of our Legal Sub-Committee on the work of its seventeenth session, from 4-28 June 1967 (A/AC.105/45). It may be recalled that at the last meeting of our Committee in December 1967, my delegation made it very clear that, while we welcomed the initiative shown by certain delegations in carrying forward the work on the agreement on astronauts, we were disappointed that the same urgency was not shown in carrying forward the work on the draft convention on liability, which was a vitally important matter, especially for the non-space Powers. We made it very clear on that occasion that, while we did not insist on any hard link between the two agreements and did not wish to obstruct the progress of the Committee on the question of rescue and assistance to astronauts, we hoped that the Legal Sub-Committee would carry out its intention, as stated in paragraph 7 of its report on the sixth session, to finalize a draft agreement on the question of liability urgently -- at any rate before the twenty-third session of the General Assembly.

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Many other delegations expressed the same view. Therefore, General Assembly resolution 2345 (XXIII), which commended the agreement on the rescue and return of astronauts, specifically called upon this Committee, in paragraph 4, to complete the proposed draft agreement on liability for damage caused by the launching of objects into outer space, urgently and, in any event, not later than the beginning of the twenty-third session of the General Assembly. There was the underlying assumption then that all members of the Committee would make all efforts to facilitate the drafting of the convention on liability in time for the General Assembly's twenty-third session.

Despite this clear-cut mandate in General Assembly resolution 2345 (XXII), we find, with much regret and disappointment, that our Legal Sub-Committee, which held its seventh session in June this year -- and devoted a major part of that session to this item on the convention on liability -- was unable to complete the draft convention on the subject. On our part, we made our best efforts to carry out the General Assembly's mandate by introducing, at an early stage of the Committee's work, a draft agreement, based on the various points of agreement registered in the Legal Sub-Committee earlier. But the report of the Legal Sub-Committee shows that while there may have been some small points on which agreement is registered, in addition to those on which such agreement was already registered earlier, on the whole, the position with regard to a general agreement on a liability convention is still far from satisfactory. There are no doubt a few points of agreement on texts and principles which may be embodied in the agreement in liability, such as the definition of damage, joinder of claims, presentation of claims, as also on the principle of absolute liability and on certain specified exceptions thereto or exoneration on certain specified grounds.

But on the debit side there is no agreement on such crucial issues as the inclusion of nuclear damage in the scope of the convention, the question whether there should be a limit on the quantum of compensation, the applicable law governing disputes regarding claims for compensation,

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the proper role of international organizations, the question of settlement of disputes, and the payment of compensation in convertible currency. I must say at this point that all these points on which differences of views were found to exist in the Legal Sub-Committee are vital points from the point of view of non-space Powers for a meaningful convention on the question of liability.

The Indian delegation cannot conceal its disappointment at the fact that certain delegations, especially the space Powers, which had earlier assured the non-space Powers that they would make every endeavour and co-operate fully, so as to secure the early finalization of the draft convention on liability, appeared to be acting in quite a contrary manner at the Legal Sub-Committee's session in June. Even on some points on which there was an agreement earlier in the Legal Sub-Committee, certain delegations came forward with new ideas which, in effect, threatened agreement even on these points.

It is not the intention of my delegation to comment here on each of the points of disagreement which are apparent in the Legal Sub-Committee's report. However, I would like to refer to some of them which need our special attention. The Indian delegation cannot understand how we can completely exclude nuclear damage from the purview of the convention on liability for damage caused by the launching of objects into outer space. As our representative on the Legal Sub-Committee pointed out, we cannot ignore the fact that the earth and its inhabitants were in existence long before the exploration of outer space and they have a primary right to exist. If activities in outer space result in damage to mankind such damage should be fully compensated. We cannot understand how it makes any difference to the victims whether such damage is caused as the effect of ordinary damage or nuclear damage. If a person is injured by a space object, what difference could it make to him whether it is due to a metal fragment or some nuclear material used in such a space object?

In our view, the liability convention should cover all damage which might occur as a consequence of space accidents. Likewise, in the absence of any precise definition of what was proposed to be excluded from the purview of the convention under the heading of "moral damages", it would be difficult for us to subscribe to any proposal to exclude such damages from the purview of the convention.

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The Legal Sub-Committee's report also states that the Sub-Committee left open the question of the law to be applied to the assessment of compensation for damage. The only point of agreement on this question appears to be that if the claimant and the respondent agreed on the applicable law, then that law would be applied. On the crucial question of which law would apply if the claimant and respondent could not agree on the applicable law, there is no agreement in the Legal Sub-Committee. It would appear that at the Legal Sub-Committee's session in June, some delegations advanced a rather fantastic suggestion that in such a situation the applicable law should be the law of the State launching the object into outer space. This would mean that if damage is caused to some persons in my country by the object launched into outer space by a space Power, the launching State or the space Power concerned can virtually insist that the damage caused to Indian nationals in India would be governed not by the law of India, or even by international law, but by the law of the launching State or that space Power.

We do not understand how this suggestion can be considered as reasonable. The Indian delegation, in the draft convention tabled by us in the Legal Sub-Committee, suggested that if there was no agreement between the claimant and the respondent on the applicable law, the question should be governed by international law and taking into account the national law of the claimant State. But apparently this suggestion was not acceptable to a few members of the Legal Sub-Committee.

There are also areas of disagreement so far as the question of provisions on the settlement of disputes to be included in the convention is concerned. One would have thought that in a convention such as a convention on liability for damage caused by launching an object into outer space -- which dealt with non-political issues pertaining solely to financial questions -- a definitive procedure for settlement could have found general acceptance. The Indian delegation, therefore, suggested a three-stage mechanism for settlement of disputes consisting of negotiations in the first instance, resort to an enquiry commission established on the basis of parity and finally, resort to a tripartite claims commission in case the earlier modes of settlement were not fruitful.

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But as the report of the Legal Sub-Committee indicates, there was no agreement on this point and the position seems to be somewhat confused whether even the earlier agreement recorded in the report of the Legal Sub-Committee at its sixth session in 1967, viz. that a claim which was not settled within six months could be referred by the claimant to an arbitral commission, is still maintained. There are also other important areas of disagreement, such as the inclusion of a provision on the maximum quantum of compensation under the convention. All these points seem to have prevented the Legal Sub-Committee's efforts this year to reach agreement on a final text of a draft convention on liability.

On the penultimate day of the Legal Sub-Committee's session, the Indian delegation put forth a revised draft convention incorporating the various points of agreement registered in the Legal Sub-Committee at its sixth and seventh sessions and suggestion provisions which appear to be the most feasible and likely to command majority support on other points. While introducing this proposal the Indian representative explained that the revised draft convention was proposed as "food for thought" in the hope that the members represented on the Committee would seriously make an effort, even at that late stage, to close the gap on their points of difference and see if the convention could still be finalized before the twenty-third session of the General Assembly.

On a proposal by the representative of Australia in the Legal Sub-Committee, the Legal Sub-Committee finally recommended in its report that, while some progress was made at the seventh session of the Legal Sub-Committee, important elements still remained on which rapprochement of views was necessary. The Sub-Committee, therefore, recommended that the Committee on the Peaceful Uses of Outer Space should give consideration to convening the Legal Sub-Committee as soon as it considers that substantial progress can be made on a convention on liability for damage caused by objects launched into outer space.

I may also recall that while introducing the revised draft convention in the Legal Sub-Committee on 27 June 1968, the Indian representative expressed the hope that all delegations would give thought and attention and display the same sense of urgency as was shown with regard to the

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astronauts last year. I would, therefore, like to hear the views of other delegations represented here on the possibilities open to our Committee to make an eleventh hour effort, even at this time, to act on the suggestion of the Legal Sub-Committee in paragraph 11 of the report and see if the General Assembly's mandate in paragraph 4 of General Assembly resolution 2345 (XXII) can be carried out.

On the second item covered in the Legal Sub-Committee's report relative to the definition of outer space and the utilization of outer space and celestial bodies, my delegation notes the recommendations made by the Legal Sub-Committee in paragraph 16. We do not see any objection to accepting those recommendations.

The Committee has many tasks to accomplish during its present session. We are confident that under your wise and active Chairmanship, the Committee will be able to successfully conclude its work.

Mr. SHAW (Australia): First of all I should like to join in welcoming Ambassador Wiggins to our midst. We welcome him here not only as the representative of one of the two great space Powers but as a colleague and friend.

Secondly, if I may, Mr. Chairman, I should like to welcome you back to our fold here in New York. We are very glad that you have been able to find time from your onerous responsibilities as Foreign Minister of your country to take the Chair during the present proceedings. In welcoming you, the delegation of Australia also wishes to acknowledge the role which you and the Austrian Government played in acting as host and providing the facilities for the recently concluded Conference on the Peaceful Uses of Outer Space held in the capital city of your country. Your generous efforts contributed greatly to its success.

Australia was one of a large number of countries which participated in the work of the Outer Space Conference and presented papers to it. It was an honour for Mr. Trevor Housley, Australian Director-General of Posts and Telegraphs, to act as Vice-Chairman of the Communications Session. In this connexion, I have the sad duty of informing the Committee that Mr. Housley died suddenly on 10 October. I think that he will be missed by many of his friends and colleagues both in Australia and abroad.

I should like to join those who have already paid tribute to the representative of the United States on the occasion of the successful launching into outer space of Apollo 7. The best wishes of all members of this Committee go to those astronauts on their fantastic trip. They are surely pushing back the frontiers of our knowledge of outer space. We also wish to congratulate the USSR on its recent extraordinary achievements in the peaceful exploration of outer space.

Mr. Chairman, I was gratified to hear your generous remarks on the occasion of the launching of the Australian satellite WRESAT I in November of last year. As you yourself have pointed out, and as the delegations of Australia have themselves mentioned on a number of past occasions in this Committee, the full participation in space activities on the part of small and intermediate-size countries can only be accomplished with appropriate international co-operation. For its part, Australia acknowledges the co-operation it received from a number of countries in the launching of WRESAT I. The United States provided the rocket on which the Australian-built and designed satellite was launched. In addition to tracking facilities in Australia other tracking stations of the United States National Aeronautical Space Administration and of France and of the United Kingdom provided data for processing and analysis, as did a number of universities.

(Mr. Shaw, Australia)

As a result, a considerable amount of data have been collected, and although no final interpretations have yet been made, it appears that positive contributions to man's knowledge of the upper atmosphere and solar terrestrial relationships will result. Interesting conclusions seem likely on the intensity of charged particles from the sun, the amount of molecular oxygen and measurements of certain radiations in the upper atmosphere and similar phenomena associated with the Milky Way and Aurorae.

In addition to these activities the Australian Space Programme has in the last year proceeded in other directions. For example, in the meteorological field there have been new developments at the Melbourne Centre in connexion with Australian responsibilities under the World Weather Watch. A large computer has been installed this year and a further one is scheduled. When these are in full operation they will add considerably to the amount of information on weather patterns in the southern hemisphere where traditional observations have been very limited. Australia is glad to play a part in this world-wide programme which is already proving of considerable benefit.

Concerning telecommunications activities, work will soon begin on the third satellite earth station in Australia to participate in the work of INTELSAT. An earth station is to be established in South Australia which will be ready at the end of next year to work with INTELSAT III which will be placed in stationary orbit over the Indian Ocean. Australia values its participation in the activities of the International Telecommunications Satellite Consortium and its various bodies, together with other States which have availed themselves of its open membership.

Reverting more directly to item 2 of our agenda, I think we would all agree that the success of the Outer Space Conference was in no small part due to the painstaking preparation and forethought which went into its organization. Our own Committee spent a considerable amount of time over a period of some years in weighing various proposals relating to the Conference. As a result, it was decided, and quite properly, that it would be directed in particular at emphasizing the application of benefits in various space fields to all countries of the world. As such the Conference was an appropriate launching pad for the second decade of space exploration. Scientists from all over the world met in Vienna to pool their

(Mr. Shaw, Australia)

scientific knowledge in many fields covering, inter alia, telecommunications, meteorology, navigation, international co-operation, and so on. As we know also, appropriate international organizations, including ELDO, of which Australia is a member, were also able to contribute of their experience. Australia sought to contribute in a modest way to the proceedings of the Conference by presenting papers on satellite communications, meteorology and satellites in the southern hemisphere, and sounding rocket experiments.

Having just participated in such a Conference, it is natural and proper that Governments and the members of this Committee should ask themselves what should now be done to follow up the work of the Conference.

In this respect, we have noted the circulation in the last day or so of document A/AC.105/L.44. It contains a useful summary of the Conference proceedings, and no doubt Governments and their advisers, both scientific and other, will wish to consider this report as a basis for determining their attitudes to many of the questions discussed and the follow-up proposals which may be made. The delegation of Australia welcomes the submission of new proposals for consideration by this Committee and its Sub-Committees.

Governments may be expected to take some time to evaluate the scientific results of the Conference and they may wish to put forward other proposals for consideration by the Committee. It seems appropriate therefore to the delegation of Australia that, apart perhaps from some suggestions which may find early unanimous support, our proposals of a follow-up nature might well be referred to the organ of this Committee specifically established to deal with such questions, namely, the Scientific and Technical Sub-Committee. Having worked so hard and long to prepare for the Conference in Vienna, it would be a pity if our Committee were, without due scrutiny, to take decisions on follow-up proposals which may span over a period of several years. In this connexion, we have noted that at the conclusion of the Outer Space Conference, the Vice-President of the Conference, Dr. Sarabhai of India, whose efforts contributed substantially to the work of the Conference, said on page 80 of document A/AC.105/L.44 that it would be appropriate if the reports of the Conference were first considered by the Scientific and Technical Sub-Committee of the Committee on the Peaceful Uses of Outer Space.

(Mr. Shaw. Australia)

He added that he would hope that this Sub-Committee could look at all aspects in a detailed manner and come up with concrete proposals which the Committee on the Peaceful Uses of Outer Space and the United Nations might adopt. The delegation of Australia supports that view, and looks forward to hearing the views of other delegations on this suggestion to which we may wish to return.

In speaking to item 3 of our agenda, the delegation of Australia would wish to associate itself with those who consider that with the coming into force of the Outer Space Treaty and the conclusion of negotiations on the Agreement on Assistance to and Return of Astronauts and Space Objects, it is becoming more urgent to conclude a satisfactory agreement on liability for damage. At its twenty-second session, the General Assembly, in voicing a virtually unanimous view, called upon the Legal Sub-Committee to complete its work urgently on this subject.

The delegation of Australia participated with other delegations in the work of the Legal Sub-Committee in Geneva in the summer of this year. At the outset of that meeting the Australian representative made the following remarks:

"While acknowledging with some gratification the past achievements of this Sub-Committee in the formulation of basic rules of law concerning activities in the outer space, the delegation of Australia is deeply conscious of the urgent need for the conclusion of an international agreement in relation to liability for damage caused by space objects."

The Australian representative further commented that, as the number and size of objects launched into outer space increased, the risk would also increase that substantial damage will be caused to States and peoples who receive little or perhaps no direct advantage from the launching of a space object. He went on to say that it was primarily for the protection of the interests of those people who occupy the greater part of the land masses of the earth but have no substantial direct concern in space activities that there is an urgent need for an effective and satisfactory liability agreement.

The Australian delegation therefore went to Geneva with the aim of assisting other delegations to reach an agreement at that session, an agreement which we hoped would have significance for the countries at risk, an agreement

(Mr. Shaw. Australia)

which would avoid undue complexity, but which would provide remedies that were certain and precise. It pledged its assistance to that end and attempted, with many other delegations, to bring such an agreement to fruition in accordance with the mandate of the General Assembly.

My delegation therefore shares the disappointment expressed this morning by the representative of India that, despite the generally cordial atmosphere at Geneva, it was not possible to reach any substantial measure of new agreement on this subject. When the Committee's report was under consideration, the delegation of Australia joined the delegations of Argentina, Austria, Belgium, Brazil, Canada, France, Japan, Mexico, Sweden, the United Kingdom and the United States of America in submitting document A/AC.105/L.51, which suggested that Governments should concentrate their attention as a matter of urgency on a number of important issues which were discussed by the Sub-Committee but were not resolved by it. These delegations felt that further progress on these central issues was imperative if a satisfactory agreement were to be negotiated.

I should like to draw the attention of the Committee, as the representative of India has already done this morning, to paragraph 11 of the report of the Legal Sub-Committee (A/AC.105/L.45) noting "that while some progress was made at the present session there remained important elements on which rapprochement of views was necessary". Paragraph 11 of the Sub-Committee's report recommends to this Committee that it give consideration to convening the Legal Sub-Committee "as soon as it considers that substantial progress can be made on a Convention on liability for damage".

The delegation of Australia would accordingly hope that all delegations, including those which found it difficult to show flexibility at the Geneva session, will show evidence of a reconsideration of their views to enable more progress to be made more quickly.

In this connexion, it would be remiss of my delegation if I were not to remark upon the constructive part played in the work of the Legal Sub-Committee this year by the delegation of India, which tabled a complete new draft agreement in an attempt to facilitate the Sub-Committee's work.

(Mr. Shaw, Australia)

Australia, with other members of the Committee, welcomed this contribution. We also note that the proposals of the Government of France concerning the definition and utilization of outer space will also require further consideration by the Legal Sub-Committee. The Scientific and Technical Sub-Committee, which was originally asked by the Legal Sub-Committee to consider the question of the definition of space, will no doubt also wish to re-examine this matter further in accordance with its own decision to do so.

We also note the interest which has been shown in the question of direct broadcasting satellites, both as reflected in resolution 2260 (XXII) and at the Legal Sub-Committee's meeting in Geneva. At the latter it was agreed that the Scientific and Technical Sub-Committee might be asked to consider this question. If, however, a separate working group should be set up to consider the matter, it would be the view of the delegation of Australia that both the Scientific and Technical Sub-Committee and the Legal Sub-Committee should be given an opportunity to comment on the results of its work.

In closing, my delegation would again wish to express the hope that the Committee's forthcoming work will be constructive and useful, and will be carried on, as it has in the past, by way of general agreement between members of the Committee on what their Governments regard as feasible and practicable areas of agreement. We look forward to hearing discussion of the proposals of delegations to which we will give our close attention.

The CHAIRMAN: We have learned with deep regret of the passing away of Mr. T.A. Housley. I personally remember the important role Mr. Housley played at the Vienna conference as Vice-Chairman of the communications session. It was indeed Mr. Housley who presented the report of that session to the conference.

May I express on behalf of this Committee and on my personal behalf our sincere condolences to the delegation of Australia.

I have no further speakers on my list for our meeting this morning. I am sorry that no other representative wishes to take the floor because there is still time left for other statements. We have only one speaker for our meeting this afternoon, the representative of the United States of America. I would therefore urge the delegations to take the floor as soon as possible. We have meetings scheduled until this Friday, but I do want to terminate the session then.

(The Chairman)

Since a number of very interesting proposals were already made in statements this morning, I think that we should try to hear the statements of other delegations as soon as possible in order to be able then to discuss the concrete proposals made by delegations in the course of debate. May I therefore appeal to all delegations not to wait too long for their statements, but to put their names on the speakers' list so that we can proceed with the debate without further delay.

The meeting rose at 12 o'clock

VERBATIM RECORD OF THE FIFTY-FOURTH MEETING

Held on Tuesday, 15 October 1968, at 3 p.m.

Chairman:

Mr. WALDHEIM

(Austria)

REPORT OF THE COMMITTEE TO THE GENERAL ASSEMBLY ON THE PREPARATIONS FOR THE ORGANIZATION AND PROCEEDINGS OF THE UNITED NATIONS CONFERENCE ON THE EXPLORATION AND PEACEFUL USES OF OUTER SPACE (GENERAL ASSEMBLY RESOLUTIONS 2221 (XXI) AND 2250 (S-V)): DOCUMENTATION ON THE UNITED NATIONS CONFERENCE ON THE EXPLORATION AND PEACEFUL USES OF OUTER SPACE (A/AC.105/L.44) (continued)
 REPORT OF THE COMMITTEE TO THE GENERAL ASSEMBLY (GENERAL ASSEMBLY RESOLUTION 2260 (XXII)): REPORT OF THE LEGAL SUB-COMMITTEE (A/AC.105/45) (continued)

Mr. WIGGINS (United States of America): May we join, Mr. Chairman, in welcoming you in your capacity as Chairman of our Committee and in acknowledging the role which you and your Government played in the recently concluded Conference on the Peaceful Uses of Outer Space held in the capital city of your country.

We wish to thank you and those who have spoken earlier today for the congratulations extended on the successful flight of Apollo 7, which is now in the fourth day of its flight plan. We accept these congratulations, Mr. Chairman, as an expression of the satisfaction that all of us have in this voyage, not as the endeavour of one national State alone, but as the achievement of the scientific community of the whole world. We must view every triumph in space as a collective effort and an achievement of the whole community of nations, deriving its success from that reservoir of human knowledge which is the inheritance of all mankind. This Committee, I know, shares our excitement in and enthusiasm for these achievements, because you have all glimpsed the new and wider horizons that lie in the conquest of outer space and the exploration of the remote regions of our environment. We believe discoveries in outer space may as profoundly alter the outlook of men and nations as that outlook was altered by the discovery of America, the anniversary of which we have just celebrated. The closing years of the fifteenth century marked a period which, like our era, was a time of disquiet and disillusionment. As Samuel Elliot Morrison has pointed out:

"At the end of the year 1492 most men in Western Europe felt exceedingly gloomy about the future... Institutions were decaying, well-meaning people were growing cynical or desperate and many intelligent men, for want of something better to do, were endeavouring to escape the present through studying the pagan past."

The Nurnberg Chronicle, in a folio dated 12 July 1492, forecast the imminent end of the world in fire and flood. But even while these forecasts were being made, a Spanish caravel, the Nina, scudded into Lisbon with news of the discovery of the new world. Morrison notes that a "complete and astounding change then took place". Sir Charles Oman observed: "A new envisagement of the world has begun and men are no longer sighing after the imaginary golden age that lay in the distant past, but speculating as to the golden age that might possibly lie in the oncoming future."

So we look to that "oncoming future" in this Committee, concerning ourselves with the issues that will become of increasing importance as the space age unfolds. And we are mindful, as we proceed, of the quiet observation of the American astronaut, the late Colonel Edward White, who, on his return from another memorable voyage into outer space, was asked by the Secretary-General of the United Nations what he had seen that interested him most, and he said it was what he did not see that interested him most — that when he looked back upon the earth, he did not see any national boundaries. It is that concept of our national responsibilities towards space exploration that we bring to these proceedings.

I am happy to be able to address this Committee which for eight years has had before it the challenge of making a radical new technology to serve the interests of man. This year the Committee has been concerned with two subjects of special importance to the international community. First, it has sponsored a useful Conference to acquaint developing countries with the practical applications of space science, and second, it has provided a forum for the negotiation of a treaty covering liability for damage from space activities. I should like to address these two matters in turn.

At different stages of development, countries naturally tend to emphasize different sectors of the economy, and may indeed differ as to ultimate objectives. All, however, have one thing in common: insistent, competing demands for limited resources. Space techniques must compete with conventional methods for these resources and must prove that they are more efficient or less costly. Often the old-fashioned way of getting a job done is also the most economical way. In some circumstances, a sextant may be a more efficient navigating tool than a geosynchronous satellite, a land line more sensible

(Mr. Wiggins, United States)

than space telecommunications, or an outdated airplane more useful for surveying resources than satellites whose design is still on the drawing boards. Often, but not always. The question of when a space application is more economical than a conventional method, and how it fits into the over-all development of a country, is extremely complex. It is in this area -- that of providing impartial, analytical advice concerning the role of space applications in economic development -- that my Government believes the United Nations can and should play an increasingly active part. How this might best be done is a matter we shall all want to consider carefully. It does seem to us, however, that proposals put forward by Sierra Leone and this morning by India help to point the way.

(Mr. Wiggins, United States)

At the Vienna Conference, the representative of Sierra Leone made very clear that he did not believe the United Nations should duplicate existing channels of information for the exchange of general scientific and technical information relating to outer space. Instead, he proposed that the United Nations create a specialized mechanism to inform and advise nations in a highly focused way of space advances which might have practical application for their benefit. Doubtless, such a mechanism might take various forms, but experience argues that a successful United Nations service must employ the best technical expertise available.

Father than a politically structured advisory body, the developing countries appear to desire disinterested and competent advice which grows out of experience in open and proven programmes; advice which will command respect and use by virtue of its demonstrated quality. This is an opportunity for our Committee to move with both wisdom and vision and we look forward to hearing from other delegations on this important matter.

Apart from the specific proposals which it generated, my Government believes that the Conference on the Peaceful Uses of Outer Space, held last August in Vienna under the able leadership of Foreign Minister Waldheim and Dr. Sarabhai, was on balance very successful. The Conference served to advance an awareness among developing countries of the practical values which can be achieved through space activities and to stimulate their interest in sharing these benefits. Through the Conference mechanism we achieved for twelve working days a healthy and, we believe, a useful focus on the practical applications of space. We believe that this focus can be sharpened and that our attention can be directed on a continuing basis to the concerns of the developing countries in this area.

The United States shares the concern of Ambassador Parthasarathi and the Indian Government over the failure of the Legal Sub-Committee to complete the liability convention this year. We agree, very substantially, with his analysis of the outstanding issues. This fact and the record of the debate in the Legal Sub-Committee should make quite clear that his reference to the reluctance and recalcitrance of the space Powers in the liability discussions did not refer to the United States. We are all the more disappointed

at the lack of forward movement in view of the past good record of the Legal Sub-Committee. After all, the outer space Treaty and the astronaut Agreement which were approved by the General Assembly in 1966 and 1967, respectively, are products of the work of the Legal Sub-Committee.

The General Assembly's instructions to this Committee for the year 1968 call upon us to present the complete convention on liability for damage caused by the launching of objects into outer space to the twenty-third session of the Assembly. All Members of the United Nations voted in favour of General Assembly resolution 2345 (XXII) which set forth this deadline. The United States and the Soviet Union expressly committed their Governments to meet this request.

During the course of this session, my delegation will analyse in some detail why so little was accomplished by the Legal Sub-Committee at its session in Geneva during the past summer. But I would summarize now by saying that, throughout the early months of the year, the United States and almost all other members undertook active and substantial planning for the Sub-Committee session. However, we found at Geneva that a number of relatively simple aspects of the liability convention became the subject of undeservedly protracted discussion, and the Sub-Committee had almost no time to discuss and resolve the very few issues which are, on their merits, difficult and require the attention of Governments.

An unconscionable length of time was then directed to questions involving applicable law, international organizations, inclusion of all kinds of damage -- questions that could have been resolved in a few days, given goodwill and earnestness of intention on all sides. The Sub-Committee barely had time to discuss -- and did not even try to negotiate -- such important issues as settlement of unresolved claims and limitation of liability. We think this is a sorry record.

We are unsympathetic to the claim that difficult issues are involved, in view of the fact that the Legal Sub-Committee has been discussing a liability convention since 1962. The time for discussion has passed and the time for real negotiation is now long overdue. We hope that those few

members who felt differently at Geneva will re-examine their positions in the light of the impatience that this Committee and the General Assembly must feel over our poor performance.

Having made these brief comments on two principal subjects of concern to the Outer Space Committee during the past year, I should like to turn for a moment to another aspect of the Committee's mandate for the current year, the question of direct broadcast satellites. At the twenty-second session of the General Assembly, the Swedish Government took an initiative in calling on this Committee to study the technical feasibility of communications by direct broadcast from satellites and the current and foreseeable developments in this field, as well as the implications of such developments. This proposal was warmly welcomed in the First Committee and unanimously agreed as paragraph 13 of General Assembly resolution 2260 (XXII).

At the Legal Sub-Committee's session this summer, the representative of Sweden noted that the Scientific and Technical Sub-Committee was not meeting in 1968 and that there would be no opportunity of undertaking this study. There was general agreement with his observation that the Outer Space Committee's attention should be drawn to the importance of the study and the undesirability of further delay. As a result, the Legal Sub-Committee agreed on a Swedish proposal recommending that the Outer Space Committee request the Scientific and Technical Sub-Committee

"... to consider the question of direct broadcast satellites, with a view to preparing a study of the technical problems involved, enlisting whenever appropriate the assistance of the competent specialized agencies of the United Nations."

The United States suggests that the Outer Space Committee should report to the General Assembly our shared awareness of the importance of a deep and objective study of this matter. We think it would be appropriate for the Scientific and Technical Sub-Committee to begin such a study as a matter of priority in 1969. We take this position despite the fact that we consider that the promise of direct broadcast from satellites to home receivers is considerably farther in the future than others have suggested.

(Mr. Wiggins, United States)

But, as last year in the General Assembly, we think there is a need for a serious study, and we hope that the Scientific and Technical Sub-Committee will undertake that study promptly.

I should like for a moment to address myself to the related subject of international arrangements in the field of space communications. The first decade of space has witnessed remarkable progress in the technology of space communications. But just as impressive as the achievements of science is the fact that men and Governments, far from being outstripped by the rapid pace of this new technology, have turned its great potential to their own use. Through effective and practical international arrangements, communications satellites have become one of the most effective tools man has for coming to understand and to live with the different ideas and beliefs of his fellows.

Certainly people may differ -- and, indeed, they do differ -- on the matter of precisely what kind of organizational arrangements ought to govern an international space communications system. This is a question of special interest to the sixty-three members of INTELSAT, since the permanent arrangements of this organization are scheduled to be negotiated during the coming year. The countries which belong to INTELSAT have had considerable experience as to what constitutes practical, fair arrangements for a satellite communications system. These countries account for 95 per cent of the world's international telecommunications traffic. In fifteen of these countries earth stations are in operation, and in many more such stations are in various stages of construction or planning. By 1970, the investment in satellites and earth stations will be \$350-\$450 million. INTELSAT, in short, is not a proposal or a proposition or a dream based on future technology. It is a daily reality, and there is every reason to expect that the organization will increase in effectiveness as definitive arrangements are concluded.

(Mr. Wiggins, United States)

The only extensive area that does not include INTELSAT members is Eastern Europe and the Soviet Union. I should like to make it clear, as we believe it has been made clear before, that this omission is not an omission through any intention of the INTELSAT partners. On the contrary, we have repeatedly sought and would strongly welcome participation in INTELSAT by the countries of Eastern Europe and the Soviet Union.

The preamble to the agreement establishing INTELSAT cites the principle set forth in resolution 1721 (XVI) of the United Nations General Assembly that satellite communications should be available to the nations of the world on a global basis. The agreement makes clear in other ways that a global system is intended. And there has been no single instance where the Consortium has responded adversely to the expressed interest of a State to join INTELSAT.

The United States for its part has repeatedly made clear that non-member States would be welcome. President Johnson reiterated earlier invitations in his August 1967 message on communications policy and his 1968 Glassboro speech, in both instances specifically mentioning the Soviet Union and the countries of Eastern Europe.

In conclusion, may I say that if the past year has not been one of unusual accomplishment for the Outer Space Committee, whatever the disappointment, it has at least set the stage for future progress in an area of direct relevance to most Members of this Organization -- that of applying to developing economies the technology of space. We look forward to participating actively in this and other important work of the Committee in the year ahead.

Mr. RIHA (Czechoslovakia) (interpretation from French): The Czechoslovak delegation has acquainted itself in detail with the draft report contained in documents A/AC.105/L.44 and A/AC.105/L.45. The year 1968 has been a period in which the achievements of man in the exploration of outer space, including that of the nearest celestial bodies, has been continued. I should like to take this opportunity to

(Mr. Riha, Czechoslovakia)

express our compliments to all those who have taken an active part in this work which was designed to ensure that outer space is used for peaceful purposes.

It was also at the United Nations that our numerous activities were continued and this is duly reflected in the documents concerned. Of all the contributions which our Organization has made this year, we consider that the following two are the most important: the first one is beyond any doubt the organization of the United Nations Conference on the Exploration and Peaceful Uses of Outer Space. Czechoslovakia is among the countries which took an active part from the very outset in the preparations for the Conference. We participated in the Conference itself through a large delegation consisting of a great number of specialists in many branches, both scientific and technical, and we expected to be able to welcome in our own country many of the delegates to the Conference for short visits. But this could not occur because of the events which took place in the course of the second half of the month of August. We consider that the Vienna Conference on the peaceful uses of outer space as a useful step but one which is only the first in our joint efforts to make the results of exploration available to all States and to ensure that people can enjoy the opportunity to make possible the development of their own societies in regard to technology, economics and science.

We consider that the Conference has offered great possibilities along these lines and it will certainly be our duty to continue and to consider the possibility of other similar conferences in the future.

In this connexion, I should also like to take into account the question of whether future manifestations of this kind should not, perhaps, be more monothematic in character so that it might be possible to study in increasing detail all the aspects of a single field which is developing very speedily and which, at the present time, is most important from the point of view of practical applications.

(Mr. Riha, Czechoslovakia)

May I express once again, through you, the thanks of our Government and of the scientific and technical circles in Czechoslovakia to the Austrian Government for having offered the city of Vienna as the site for the Conference and for the efforts made by that Government to ensure that the Conference, bringing together the eminent personalities of science and technology of the whole world, could be carried out successfully.

Another field in which our Organization has made an important contribution is the setting up of international law in outer space. It becomes clear from the report of the Legal Sub-Committee concerning the activities in this field that that body has unfortunately been unable to implement the provisions of resolution 2345 (XXII) according to which the work on the draft agreement on the liability for damages caused by objects in space should have been concluded.

The Legal Sub-Committee has shown marked progress at the June session in Geneva in elaborating this draft agreement. But certain important problems have not yet been solved. It is necessary, in order to be able to find effective and appropriate solutions, for Member States to intensify their studies of these problems and for them to select from among the possibilities offered by the different legal systems, that solution which corresponds most closely to the purpose set forth in the international agreement to be concluded. As a country which is not taking part in the practical exploration of outer space, we consider that the work on the conclusion of a draft agreement should be continued as soon as possible.

Our delegation devotes considerable attention to the second item of the Legal Sub-Committee -- proposed by France -- which deals with the definition of outer space and its peaceful uses.

Within the context of this agenda item the aspect highlighted by the delegations of the United Arab Republic and Sweden this year, namely, the utilization of outer space and the celestial bodies, including the various implications of space communications, deserves special attention.

(Mr. Riha, Czechoslovakia)

The technical and doubtless legal questions connected therewith call for extensive studies; as a matter of fact, and this has also been made clear in the report of the Legal Sub-Committee.

My delegation has already supported in the past the idea of a future detailed examination of this question. Our position remains unchanged in this regard.

(Mr. Riha, Czechoslovakia)

The Czechoslovak delegation considers that the report submitted by our Committee gives the General Assembly a complete idea of our activities in this field so that the Assembly will be able to examine the results in good time and formulate if necessary any other recommendations for our future action.

Mr. MILLER (Canada): Mr. Chairman, the Canadian delegation would like to associate itself with the remarks which have already been addressed to you, Sir, as Chairman of our Committee, expressing pleasure that you have found the time, despite your responsibilities as Foreign Minister of your country, to preside over our present proceedings. In welcoming you, Mr. Chairman, my delegation also acknowledges the constructive and generous role which you and the Austrian Government played in hosting and providing facilities for the successful Conference on the Exploration and Peaceful Uses of Outer Space held in Vienna this summer.

Canada was among several countries participating actively at this Conference by presenting papers to it and by chairing one of its thematic sessions. In this connexion, I should like to say how distressed I and members of my delegation were to hear that Mr. Housley died suddenly. He will indeed be missed by many of his colleagues abroad.

Like others, I wish to pay tribute to the representative of the United States of America and to his Government on the successful launching and orbiting of Apollo 7. The best wishes of my Government go to the three-man crew and to those associated with this truly imaginative project. We also congratulate the Soviet Union on its recent passage around the moon and recovery of Zond 5.

On past occasions before this Committee Canadian delegations have emphasized Canada's concern with the use of outer space for telecommunications based on interference-free radio signals. Since then the Government of Canada has published a White Paper announcing the intention to establish a domestic satellite communication system as soon as practicable which would provide a television service in English and French to all of Canada and a telephone service to supplement the present microwave network. As planned the system will have two satellites in stationary orbit over the Equator, each capable of illuminating all of Canada with a single antenna beam and designed for at least four and up to twelve channels with each channel being capable of handling one television

(Mr. Miller, Canada)

programme or up to 600 telephone circuits. The Canadian Government proposes to form a special corporation to develop, own and operate both the satellites and the necessary earth stations of the system in conformity with relevant international agreements.

I have outlined Canada's plans in some detail in order to emphasize that the Canadian Government intends to co-operate fully with the International Telecommunication Union (ITU) in the co-ordination of radio frequencies and orbit positions and to move forward with its domestic satellite communications system in the same spirit of international co-operation and with the same drive to strengthen the framework of international co-operation by satellites as has animated Canada's founding membership and participation in the International Telecommunication Satellite Consortium (INTELSAT).

I should like now to turn to item 2 of our agenda, which is the report of this Committee to the General Assembly regarding the Vienna Conference on the Exploration and Peaceful Uses of Outer Space. We have just received document A/AC.105/L.44, which forms a most useful basis for our report. Many subjects which were covered in Vienna will be considered in detail by my Government and, I am sure, by the Governments of most other Member States. Many of these subjects are highlighted in chapters IX and X of document A/AC.105/L.44, but unfortunately -- and I am sure because of the short time which has elapsed since the Conference -- the document is unable to make clear the origin of the material in those chapters. In the opinion of my delegation this material is interpretative in nature and therefore requires further studies by Governments before it can be used as part of the report of this Committee.

I would suggest, therefore, that chapters IX and X be eliminated from document A/AC.105/L.44 in making our report to the General Assembly, and that these chapters be turned over to our Scientific and Technical Sub-Committee for consideration and possible revision. At the same time, comments from specialized agencies and from Member States not represented on this Committee could be considered by the Scientific and Technical Sub-Committee. Certain items discussed at the Vienna Conference properly fall into the field of the Legal Sub-Committee, particularly the matters considered in thematic session IX and the Legal Sub-Committee could be asked to consider these points at its next meeting.

(Mr. Miller, Canada)

A suggestion was made this morning that the momentum generated at Vienna should not be lost and therefore our Sub-Committees should act quickly on these and other matters to which I will refer shortly. One suggestion of a follow-up character which was proposed this morning by the representative of India was, if I understood him correctly, to publish a pamphlet on the achievements of the Vienna Conference and to supplement this with some form of audio-visual presentation. We are all anxious to ensure the widest possible dissemination and practical application of the material presented at Vienna, but it seems to my delegation premature to attempt to describe fully all the results and achievements of the Conference for many of these will only become apparent with the passage of time. My delegation believes, therefore, that we should not attempt at this time to prejudge the results of the Vienna Conference. Instead, we should recognize the useful contribution made by the Office of Public Information in the pamphlet entitled "Space, Science and Technology -- Benefits to Developing Countries", and consider whether it would be appropriate for this pamphlet to be revised to include, inter alia, the summary statements made by you, Mr. Chairman, as President of the Conference and by the Vice-President, Dr. Sarabhai, and by the Chairmen of the various sessions of the Conference.

It seems to my delegation that such a revised pamphlet might well meet the suggestion made this morning by the representative of India, and that in a year or so after some results of the Conference have become more apparent, these can be collated by our Scientific and Technical Sub-Committee as the basis possibly of another pamphlet.

The subsidiary suggestion of an audio-visual presentation would appear admirably suited to the needs of many developing countries, and at this time my delegation would suggest that this idea be transmitted to the Scientific and Technical Sub-Committee, together with perhaps greater detail on the part of the originators of this idea. For example, if it is to be a film, then a preliminary shooting script would seem desirable. Possibly the presentation tomorrow by the Office of Public Information might serve to clarify what the originators have in mind.

(Mr. Miller, Canada)

Suggestions have been made both in the concluding statements of the Vienna Conference and at this session of our Committee concerning matters to be taken up urgently by the Scientific and Technical Sub-Committee. These we welcome, and my Government will do its part in responding to these suggestions. We regard it as particularly important to continue to ascertain the practical needs of developing countries which may be met through space techniques and to ascertain the capabilities of these countries to use such new techniques. This second point may reveal areas where developments are required in ancillary activities, such as local communications, and in organizations which if not improved may frustrate the exploitation of new technology for the benefit of developing peoples.

(Mr. Miller, Canada)

My delegation therefore welcomes the suggestions concerning the provision of expert advice to the developing countries. Though we are not entirely certain how this advice should best be secured, we are prepared to study several possibilities and to support those which prove generally acceptable.

I wish to turn for a moment to the report of the Committee on the Peaceful Uses of Outer Space at the twenty-second session of the General Assembly. Specifically, I refer to operative paragraph 13 of General Assembly resolution 2260 (XXII), which requested the Committee "to study the technical feasibility of communications by direct broadcasts from satellites and the current and foreseeable developments in this field, as well as the implications of such developments".

Pursuant to the General Assembly resolution, the Legal Sub-Committee, at its meeting at Geneva last June, briefly considered the question of direct broadcasting from satellites. After discussions in which a number of countries expressed their deep interest in the matter, the Sub-Committee adopted resolution 1, whereby it recommended that the Committee request "the Scientific and Technical Sub-Committee to consider the question of direct broadcasting satellites, with a view to preparing a study of the technical problems involved, enlisting wherever appropriate the assistance of the competent specialized agencies of the United Nations".

It is the view of my delegation that time does not permit much delay before a study of this question is undertaken. Indeed, as was suggested at the Vienna Conference, satellites with very powerful transmitters can be produced within the next few years and direct television broadcast from satellites would be available in about five years. It was also remarked at the Conference that such techniques are already in existence, but that the cost of establishing such a system at present was one of the principal factors mitigating against it. Of course, it could be decided in the very near future by any country or group of countries that the benefits to be derived from these new and untapped media outweigh the expense. And, naturally, direct radio broadcasting, which has many of the advantages — and creates many of the same problems — would be much less expensive. I do not wish to go into this matter in any detail at this meeting, but to ask members of this Committee to

(Mr. Miller, Canada)

give some thought as to whether the Scientific and Technical Sub-Committee is the most appropriate or the only appropriate body in which this question could or should be studied.

My delegation tends to the view that, impressed as we are by the comments made at the Conference on the Peaceful Uses of Outer Space to the effect that direct broadcasting from satellites is technically feasible now or in the very near future, and as our own preliminary studies of the subject lead us to the same general conclusion, we believe that serious consideration should be given to the commencing of studies now on all aspects of the question: technical, legal, social and economic.

My delegation will have more to add to this subject later in our debate when we speak on the report of the Legal Sub-Committee meeting held in Geneva this summer.

The CHAIRMAN: I have no further speakers on my list. Does any other representative wish to take the floor this afternoon?

This is perhaps not a very satisfactory situation. We know that we are limited in time. We must finish our session in the course of this week, and I would therefore appreciate it if delegations would inscribe their names as soon as possible so that we can continue this debate on the items before us without interruption.

Tomorrow we have on our programme the showing of a film produced by the Office of Public Information. The movie will be shown at 10.30 a.m. in this room before we resume our debate. I hope that we can start punctually since we then have two speakers listed for tomorrow, the first being the representative of the Soviet Union, and the second being the representative of Italy. I hope that other delegations will put their names on the speakers' list so that we can fill the morning with statements by other delegations.

For the afternoon meeting I had until now on my list the representatives of WMO, ITU and COSPAR, but no other delegations. I wish to stress the importance of speedy work by our Committee because we will have some problems on Friday. I have spoken to the Chairman of the First Political Committee, Ambassador Vinci, in order to find out about the beginning of the meetings of the First Political Committee. Ambassador Vinci informed me this morning

(The Chairman)

that he must start the meetings of the First Committee on Friday morning. It was already planned for Thursday afternoon, but he kindly agreed to postpone the beginning of his Committee's meetings until Friday morning. He cannot wait any longer, so it would of course be very important for us to try to get as much work done by Thursday evening because from Friday on some of the delegations represented here will have to go to the meetings of the First Committee too. I am, of course, at the disposal of the Committee, but I just wanted to inform the Committee of this situation and to ask at the same time that it take the floor as soon as possible so that we can prepare for the recommendations we have to make to the General Assembly. Perhaps it will then be useful to set up an informal working group to find out what kind of recommendations this Committee can make to the General Assembly.

I mention this only to acquaint the Committee with the problems with which we are confronted, and I very much hope that delegations will put their names on the speakers' list as soon as possible so that we can proceed with our debate without interruption.

The meeting rose at 4.10 p.m.

VERBATIM RECORD OF THE FIFTY-FIFTH MEETING

Held on Wednesday, 16 October 1968, at 10.30 a.m.

Chairman:

Mr. WALDHEIM

(Austria)

later,

Mr. DIACONESCU

(Romania)

/...

REPORT OF THE COMMITTEE TO THE GENERAL ASSEMBLY ON THE PREPARATIONS FOR THE ORGANIZATION AND PROCEEDINGS OF THE UNITED NATIONS CONFERENCE ON THE EXPLORATION AND PEACEFUL USES OF OUTER SPACE (GENERAL ASSEMBLY RESOLUTIONS 2221 (XXI) AND 2250 (S-V)): DOCUMENTATION ON THE UNITED NATIONS CONFERENCE ON THE EXPLORATION AND PEACEFUL USES OF OUTER SPACE (A/AC.105/L.44) (continued)
REPORT OF THE COMMITTEE TO THE GENERAL ASSEMBLY (GENERAL ASSEMBLY RESOLUTION 2260 (XXII)): REPORT OF THE LEGAL SUB-COMMITTEE (A/AC.105/45) (continued)

Mr. BLAGONRAVOV (Union of Soviet Socialist Republics) (interpretation from Russian): First of all, Mr. Chairman, I should like to thank you as well as those representatives who have commended the most recent achievements of the Soviet Union in the conquest of outer space for peaceful purposes and for the ultimate betterment of human welfare.

Among these achievements, special emphasis should be placed on the recent flight around the moon by the Soviet station, Zond 5, which was concluded with the return of that station to earth, the operation being carried out with exceptional accuracy in the manoeuvring of the station in outer space. The launching of station Zond 5 clearly shows that, since the launching of the first artificial earth satellite, great strides have been made towards solving the problems and in developing methods of conquering outer space. The development of outer space technology in opening up newer and further reaching possibilities in the conquest of nature by man has been truly dramatic.

I have had occasion in the past to indicate that it is not yet initially clear what may be the possibilities for the welfare of mankind as a whole which will flow from the development of each new acquisition of knowledge in each new branch of science. For instance, at the launching into the earth's orbit of the first artificial earth satellite, scarcely anybody --- including those who were directly connected with the elaboration of that experiment --- had any clear idea as to the new possibilities unfolding before mankind which, today, are entirely realistic. For instance, the organization of a global telecommunications network, with direct radio and television broadcasting to all corners of the world by means of artificial satellites. That is why, doubtless, that each new step in the conquest of outer space and each new achievement in this branch of science contain the seeds of further practical possibilities for the peoples of the earth.

(Mr. Blagonravov, USSR)

The Conference on the Exploration and Peaceful Uses of Outer Space held this year in Vienna under the aegis of the United Nations was the first attempt to take stock of and evaluate the practical possibilities, to formulate recommendations for the development of those possibilities, and to place them in the service of improving human society, particularly in the service of the developing countries.

At the same time, discussion of such questions has doubtless produced new ideas for the further development of action in this direction. It behoves us, therefore, to acknowledge the great usefulness of the Conference and, on behalf of our Committee, to tender our thanks to the Government of Austria for the high calibre of the organization and proceedings of the Conference in Vienna in such an exceptionally competent way.

(Mr. Blagonravov, USSR)

In referring to the usefulness of the above-mentioned Conference, we think that we ought to recommend to the General Assembly that, for the future, it should bear in mind the possibility of organizing such conferences after a certain given amount of time. The length of time involved would be difficult to determine at present, but such conferences should be held whenever the prospects for even greater use of the possibilities that emerge would make the convening of such conferences desirable.

In mentioning the Conferences, I cannot pass over in silence with regard to the statement made at the Conference by the Government of the Soviet Union concerning the projected organization of world communications using artificial earth satellites, under the title of "Intersputnik". In striving to contribute to the strengthening and development of comprehensive economic, cultural and other links between States through communications, as well as through radio and television broadcasting, the Governments of Bulgaria, Hungary, the German Democratic Republic, Cuba, Mongolia, Poland, Romania, the USSR and Czechoslovakia came forward with a proposal to establish an international communications system, using artificial earth satellites called "Intersputnik". This information has been circulated in document A/AC.105/46 dated 9 August 1968.

The draft agreement is designed in strict correspondence 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, dated 27 January 1967. It proceeds from the democratic principles relating to the functioning of that organization. In particular, this will be noted from the fact that a member of "Intersputnik" might be any State in the world that is able to undertake for itself full and equal participation in the conduct of activities of the organization and the adoption of decisions on the substance of its work. The democratic and egalitarian character of the provisions governing the structure and orientation of the activities of "Intersputnik" compares favourably with the other existing international telecommunications organizations using artificial earth satellites. "Intersputnik" is one further example of the genuine attempt of the Soviet Union and the other Socialist countries towards achieving large-scale international co-operation so that the fruits of the conquest of outer space might be made available to all peoples of the world. It is our conviction that only by means of such international co-operation -- the foundation of which is the extensive participation of various countries and their full equality -- that the desired results will be achieved.

(Mr. Blagonravov, USSR)

May I now call attention to some of the proposals which have been submitted to this Committee by a number of delegations. In the course of our Committee's work, certain views were expressed considering the desirability to take action to popularize the results of the Vienna Conference on outer space. The representative of India, for example, proposed that we publish a pamphlet on this subject and that we prepare certain audio and visual materials. Other views were expressed which were designed to ensure that appropriate form be imparted to certain of the ideas expressed at the Conference. As evident from the first day of work, members of our Committee thus far do not have one single approach to these views, as they were expressed. The representative of Canada, as I understood him, called upon us not to run ahead and anticipate the ultimate results of the Conference and their effect upon the future development of international co-operation in outer space.

We support the proposal of large-scale popularization of the results of the Conference through publication and dissemination of the materials relating to the Conference, through the media of the United Nations, in the form of a concentrated presentation of the basic questions that have been raised and discussed at the Conference. At the same time, we deem it appropriate to study the results of the Conference in great detail and -- based only upon the results of such a study -- to adopt recommendations that will be aimed at developing and strengthening of those positive elements which have been the result of the Vienna Conference.

Members of the Committee have again drawn attention to the important problem of direct radio and telecommunication broadcasts using artificial earth satellites. The Soviet delegation, in the Legal Sub-Committee, adopted a favourable attitude and supported the proposal submitted by Sweden to entrust to the Scientific and Technical Sub-Committee the task of providing conclusions with regard to those questions which might arise in the use of satellites for direct broadcasting. We believe that the conclusions of the Scientific and Technical Sub-Committee will contribute to a solution not only of the technical, but also of the economic, political and legal aspects of this matter.

May I now refer to the report of the Legal Sub-Committee on the work of its seventh session. At that session, the central theme was the question of the elaboration of an international agreement on liability for damage. The Sub-Committee had before it drafts submitted by Hungary, the United States, Belgium, India and Italy. As a result of the efforts of members of the Sub-Committee, it

(Mr. Blagonravov, USSR)

was possible to make headway and to come to agreement upon a number of important provisions on the convention for liability for damage; in particular, it was possible to achieve general agreement and to formulate concrete formulas and provisions dealing with the application of the principle of absolute liability and cases of exoneration from liability, as well as those of joint liability in the case of joint launching of space objects, and those involving liability in the case of damage done by one space object to another, and to third parties, and other matters. Of great significance is the fact that at the session it was possible to reach an agreement on the need to apply the elaborated convention to damage done not only on the ground and in air space, but also in outer space, as well as with regard to the inadmissibility of any exoneration whatsoever from liability in the case of unlawful activity, establishing also the liability in outer space on the basis of the principle of guilt or fault.

However, on the whole, the results of the seventh session of the Legal Sub-Committee cannot be deemed to be satisfactory. The Sub-Committee was unable to carry out the mandate contained in General Assembly resolution 2345 (XXII), namely, "to complete urgently the preparation of the draft agreement on liability for damage caused by the launching of objects into outer space ...". The work of the Sub-Committee indicated that, with respect to a number of important provisions of the convention under preparation, the position of Governments was still rather divergent. In the view of the Soviet delegation, in spite of the serious genuine difficulties which have arisen in preparing the provisions relating to liability for damage, the Sub-Committee did have a genuine possibility for overcoming the divergences and should have been able to complete the text of an agreement. For this, it was necessary, of course, for the Sub-Committee unswervingly to be guided in its work by the provisions of the Treaty on Outer Space, and it should have based itself upon the existence of States with different social structures, and legal systems, and it should also have taken into account the contemporary development of outer space technology.

The Soviet delegation is convinced that the difficulties which arose in the Sub-Committee are not insurmountable and that, on all matters which have become controversial, it is possible to achieve a mutually acceptable solution.

(Mr. Blagonravov, USSR)

Let us take, for instance, the problem of the subject of liability in the case of joint outer space activity: this problem, as we see it, could be resolved, taking into account the idea contained in the well-known proposal submitted by the delegation of France that, in the case of joint space activities on the part of several States, the compensation for damage should be provided first of all by one given State alone and not by all the participants in such activity.

(Mr. Blagonravov, USSR)

The Soviet delegation is prepared to support this idea, if it is acceptable to the other members of the Sub-Committee. Substantial divergences of view existed also concerning the limit of liability. A large number of members of the Sub-Committee were against limiting liability in any way. However, this point of view was not unanimously supported in the Sub-Committee.

In the view of the Soviet delegation there are genuine possibilities for solving this problem as well. We also know of the controversial problem of so-called nuclear damage connected with activities in outer space. The Soviet delegation, for its part, shares the view of those delegations which have spoken in favour of an independent solution of the problem of nuclear damage and against its mechanical inclusion in the convention under elaboration.

In this connexion, it is necessary to take into account the fact that, at the present stage of the development of science and technology, the problem of the use of nuclear energy in the study and exploration of outer space has not yet come to full maturity and that agreement on an independent consideration of this problem in the future would facilitate a speedy conclusion of the formulation of the convention under consideration.

As for the principle of the determination of the amount of compensation for damage, this problem is one that should be given special attention. Possibly, given the differences of opinion that have been expressed, it might be necessary to attempt to include in the convention concrete norms for direct settlement. The Soviet delegation, for its part, is prepared to seek out other universally acceptable solutions to this complicated problem.

Also pending were the questions of international organizations and certain other matters. In the opinion of the Soviet delegation the question of international organizations might be resolved on the basis of the well-known proposal of the delegation of India, concerning the inclusion in the convention of a provision indicating that claims for damage done by outer space objects launched by international organizations are presented first to the international organization itself or, in the case of non-compensation of the damage within a given time-limit, to one or several of the States members of such organizations.

The Soviet delegation considers that, in order to create favourable conditions for the conclusion of the preparation by the Legal Sub-Committee of

(Mr. Blagonravov, USSR)

a universally acceptable text of the agreement, all members of the Committee should apply all their efforts to the speedy harmonization of their positions on the basic unresolved issues. As for the Soviet delegation we are prepared to do everything in our power to assist the achievement of a positive result. We hope that the convention concerning liability for damage will be the next important step on the way towards further development of standards in outer space law, and we venture to hope that this convention will be put into operation in the near future.

As has been pointed out earlier, the Legal Sub-Committee has also considered the question of the definition of the concept of the use of outer space. Discussion has shown that, during the past year, there have been no new elements which would have made it possible to define the concept of outer space -- in other words, to establish a boundary between air space and outer space. A general opinion was created in the Sub-Committee concerning the need to avoid any haste in the solution of this problem, and we support that recommendation of the Sub-Committee concerning the desirability of a further study of this question.

Considerable interest from the point of view of new possibilities, which are offered to mankind in the use of outer space, is contained in the problem of the use of outer space and celestial bodies, including the various consequences of space telecommunications. Special attention should be centred around the problem of the formulation of legal principles in using space communications, as proposed by Czechoslovakia. This problem is of great practical significance and should be studied in detail in the Legal Sub-Committee.

As a result of the study of the report of the Legal Sub-Committee on the work of its seventh session, the Soviet delegation has come to the conclusion that it could be approved by our Sub-Committee as a whole. The Soviet delegation has always been of the opinion that, in conquering outer space, a great role is to be played by international co-operation. In order for that co-operation to be fruitful, it is absolutely necessary to provide it with clear-cut and universally acceptable legal foundations.

May I express the hope that the recommendations of the present session of the Committee to the General Assembly will constitute a substantial contribution

(Mr. Blagonravov, USSR)

to the cause of mutual understanding in international co-operation and will improve the value of the practical results of the conquering of outer space.

Mr. VINCI (Italy): Mr. Chairman, the Italian delegation wishes to associate itself with previous speakers in thanking you personally for being able to bring once again to the Chair of our Committee the treasure of your experience and your ability. We sincerely appreciate your acceptance of this additional burden imposed upon you, being perfectly aware of the heavy responsibilities you have assumed as Foreign Minister of your country -- the high office to which you have been called by the confidence of your Government in recognition, we feel sure, of the services you have rendered, and the further services you will render to your own country.

We also wish to express to you, Mr. Chairman, and to your Government the warmest congratulations for the perfect organization of the United Nations Space Conference in Vienna last August. The stimulating discussions and the many suggestions which emerged at the various sessions of the Conference -- as we could also understand and realize from the film coverage we have just had the pleasure to see -- will undoubtedly have an important effect on the future of international co-operation in outer space. Your Government and yourself, Mr. Chairman, to whom we owe already so much for our achievements in this field of international co-operation in outer space, will certainly be recalled for the decisive role played in proposing, sponsoring and organizing this Conference.

Mr. Chairman, I share with you and with other colleagues the sorrow for the loss of Dr. Housley, who made such a valuable contribution to the communications session, and I wish to express the condolences of the Italian delegation to the distinguished Australian representative and to Dr. Housley's family.

The Vienna Conference, with the interesting ideas it produced, was important and fruitful. It was one of the many space events which have taken place since the last meeting of our Committee. The two major space Powers have continued to amaze and impress us with their outstanding achievements, and I wish to join the previous speakers in offering the sincere congratulations of my delegation to the representatives of the Soviet Union and of the United States

(Mr. Vinci, Italy)

for their latest successes in orbiting the moon with the Zond 5 spaceship, and in sending the Apollo 7 on its daring mission around the earth with its crew of three brave astronauts.

As it has been stated by you, Mr. Chairman, not only the two major space Powers have been active these last twelve months. Many others, such as Australia with the launching of its first WRESAT satellite; France with a far-reaching space exploration programme; Canada preparing for its first national communication satellite; the United Kingdom following through with its ARIEL satellites; Argentina with its Chamical and Mar del Plata sounding rocket launchings; Brazil with its Barreira do Inferno rocket experiments; India with its United Nations-sponsored sounding rocket launchings from Thumba; and the European Space Research Organization (ESRO), with its ESRO 1 and ESRO 2 satellite launchings, have progressed forward toward new peaceful space objectives in an inspiring drive aimed at expanding the knowledge of the cosmos and at penetrating its secrets for the benefit of all mankind.

(Mr. Vinci, Italy)

My country, too, has endeavoured to bring its contribution to this worldwide space exploration effort through the further work of several groups of researchers and research organizations. Of course, our main activity has been the collection and processing of the data sent by the San Marco II satellite, which re-entered the atmosphere last September, generating useful information about the density of the atmosphere. A report containing this information has been presented to COSPAR. The same group, Centro Ricerche Aerospaziali, headed by Professor Broglio, that launched the San Marco II, is envisaging a series of sounding-rocket launchings from the San Marco range next month, in the framework of the synoptic programme established by COSPAR, and is also preparing for the launching of the satellite San Marco C next year, which will carry, in addition to its Italian payload, one experiment devised by the United States NASA and one prepared by the University of Nairobi, Kenya.

At this point I want to emphasize and repeat what has already been stated by our Foreign Minister, Senator Medici, in the General Assembly a few days ago:

"Italy is prepared to provide the developing countries with access to the San Marco Space Programme. It is also prepared to offer the co-operation of Italian technicians for the implementation of their national projects or of projects of common interest".

On behalf of my Government I am glad also to invite a group of observers from this Committee either to the sounding-rocket launchings from the San Marco range next November or to the San Marco C launching next year.

In addition to the work of the CRA, and also under the co-ordination of the National Research Council of Italy, several university groups have been performing space research activities. I will mention only briefly the work done by the Space Research Group of the Institute of Physics of the University of Rome, which has prepared an experiment for the measurement of the energy distribution of the solar wind that will be flown with the ESRO-HEOS 1 satellite, and also that of the Cosmic Rays Group of the University of Milano, headed by Professor Occhialini, which is preparing experiments on cosmic rays to be flown on satellites in the years 1969-1971, as well as the activities of the Space Physics Group of the University of Florence, which is working at an experiment on geomagnetic fields, to be tested with the ESRO-HEOS-A1 satellite.

(Mr. Vinci, Italy)

Mention is also deserved by the solar X and ultra-violet measurements performed by the Arcetri Observatory under the leadership of Professor Righini, the radio-propagation studies with the San Marco I performed by Professor Carrara's Microwave Centre in Florence, and the extended auroral observation collected by Professor Giorgi's Centre of the Physics of the Atmosphere and Meteorology of the CNR in Rome.

I do not want to take more of the Committee's time and strain too much the patience of my colleagues around the table by listing many other Italian space activities, since the time allocated to our Committee for this session is so short and brevity is required of all of us in order to elaborate some meaningful recommendation for the General Assembly.

I wish to comment now on the suggestions that emerged from the discussions held at the Vienna Conference, some of which have been put forward again here by my colleagues for the consideration and recommendation of our Committee.

My delegation has found particularly interesting the proposals made by the representative of India. I believe that there is much merit in those proposals and that they deserve to be studied in depth by our Scientific and Technical Sub-Committee at its next session. In that body, these proposals could be usefully evaluated together with the equally interesting proposals made by the representative of Sierra Leone.

On the other hand, at Vienna there were other topics that were discussed at length and which aroused much interest among the representatives -- enough for them to call for their consideration by our Scientific and Technical Sub-Committee. Such topics were the status of the World Weather Watch effort; the response of the ITU to the problem of allocation of space frequencies; the question of space broadcasting, which was also introduced by the representative of Sweden last year and yesterday by Canada; and the question of application satellites other than communication, navigation and meteorological. The developments which have taken place in these areas since the last meeting of the Scientific and Technical Sub-Committee, as was apparent at the Vienna discussions, indicate the need for an early session of that Sub-Committee, fully dedicated to these topics.

(Mr. Vinci, Italy)

As far as the problem of navigation satellites is concerned, the opinions, ideas and suggestions expressed at Vienna represent a substantial step forward in the consideration of such space application, and, in the opinion of the Italian delegation, they warrant the convening of a new session of the United Nations Working Group on Navigation Satellites in order to assess the situation in this field.

I now turn to the third point on our agenda, namely the report of the Legal Sub-Committee. Much to its regret, the Italian delegation must record its deep disappointment that the hopes and recommendations which were expressed by the twenty-second General Assembly on an early conclusion of a convention on liability for damages originating from space activities have not been fulfilled.

I believe that I need not restate here the point of view that was indicated by my delegation last December when casting its vote in favour of the resolution commending for signature and ratification the draft agreement on the rescue and return of astronauts. We said on that occasion -- and, indeed, this concept was expressed by all delegations -- that the two agreements -- the one on rescue and return and the other on liability -- were to be considered legally and politically inseparable instruments for the implementation of the Space Treaty, and that the conclusion of the first agreement should not make us neglect the second one.

Unfortunately, in spite of every effort made by the Legal Sub-Committee and our own exhortations, it has been impossible to reach unanimous agreement on this subject, which is of fundamental importance and entails the solution of major problems.

The Committee is aware of the main differences still to be settled; these are the principles and the law to be applied in the assessment of the damages to be paid; the inclusion, in the text of the convention, of the rules about nuclear damages in the case of space objects using nuclear components; the case of limited or unlimited liability (the majority of the Sub-Committee, as we well understand, being in favour of the unlimited liability).

Among the proposals put forward by the Italian delegation, I should like to mention one especially. We have submitted that, for outer space damages, the principle of liability has to be based on proof of fault rather than on absolute

(Mr. Vinci, Italy)

liability. The idea, in fact, of absolute liability, in the event of a collision between two or more space objects, would appear to us a legal absurdity, as it has recently been agreed by Professor Dembling in his Vienna paper on this subject.

In order to clarify its position and to indicate the best formulations to be adopted, the Italian delegation at the 1968 meeting of the Legal Sub-Committee in Geneva introduced a draft of a convention. We should like today to bring it to the attention of this Committee as a contribution towards the elaboration by the Legal Sub-Committee of a unanimously agreed text which could reflect the interests, co-operative spirit and goodwill of all Member States.

(Mr. Vinci, Italy)

In this connexion, I should like also to assure the representative of the Soviet Union that we have listened with interest to the ideas he has expressed and I can assure him again that they will be given due attention by my own delegation.

In conclusion, we feel that it is the duty of our Committee to suggest to the present session of the General Assembly that a new and more forceful mandate be given to the Legal Sub-Committee to resume, at the earliest possible date, consideration of this point so as to submit at the latest to its XXIVth session an agreed text of a draft agreement on liability. I am inclined to agree with the representative of the United States who stated in substance that the very importance of this matter should require, especially, a show of goodwill from the members of the Legal Sub-Committee. As the old saying goes, wherever there is a will there's a way. Thus, if we really wish to solve such problems, as difficult as they might be, we feel sure that an agreement is not out of our reach.

These are the considerations, in general terms, that my delegation wished to express at this stage while confirming its readiness to co-operate fully with all members of this Committee -- in the general debate as well as in a smaller drafting group, if such is the wish of the Committee -- in order to accomplish promptly and effectively the mandate entrusted to us by the General Assembly of the United Nations.*

Mr. ASTROM (Sweden): I should like, first of all, to thank the Chairman of the Committee -- and perhaps I can ask the Acting Chairman to convey my thanks to him -- for the comprehensive and lucid statement that he made yesterday on the activities of the Committee on the Peaceful Uses of Outer Space during the past year. In our view, it is an excellent starting-point for our discussions during this session, just as the film shown this morning provided us with such a vivid and exciting back-drop to our discussions.

* Mr. Diaconescu (Romania), Vice-Chairman, took the Chair.

(Mr. Aström, Sweden)

We also wish to express our deep appreciation of the reception given to the participants at the Vienna Conference by the Austrian Government, as well as by the Chairman of this Committee.

We are all aware of the tremendous changes that the space age, which started only eleven years ago, has already brought about in the life of man. The leading space Powers are continuing their efforts towards the exploration of outer space and the day may not be far away when the first man sets foot on the moon. The last few weeks have witnessed new dramatic exploits which indicate that the horizons of man are continually widening at an accelerating pace. Spectacular as such achievements are, they form but a part of space technology and science. It is an encouraging and challenging thought that the ever-expanding human knowledge of space has far-reaching and growing implications for man's life and daily activities on earth. This clearly emerged from the deliberations at the outer space Conference in Vienna. The Conference served to clarify the tremendous impact of space science and technology on communications, meteorology, navigation, biology, medicine, as well as on agriculture and industry.

We believe that the Conference was an important step towards greater international co-operation with regard to outer space problems. It provided us with an exhaustive inventory of today's knowledge in different fields of space science and technology. Useful as the conference was, we felt that the technical matters tended, to some extent, to overshadow other important aspects of the total problem. Given the main purpose of the Conference and the short time of its duration, this was perhaps unavoidable. But, in our opinion, just as it is one of the most important tasks for the United Nations in the space age to associate Member States, Governments, as well as scientific communities and public opinion, with the latest technical developments, the widest possible attention should at the same time be given to the political, social, legal, cultural and other implications of space science and technology.

(Mr. Aström, Sweden)

If a new space conference of a general character should be considered at some stage, we would like to recommend that, alongside a necessary technical debate -- certainly in itself of the utmost importance -- more attention should be devoted to discussion of other space matters in which also politicians, jurists, educators and representatives of other disciplines could make their valuable contributions.

In this context and before leaving the subject of the Vienna Conference, may I say that we listened with great interest to the suggestions made yesterday by the representative of India. We are certainly going to study them in a positive spirit and with intense interest.

It is true that some questions of high political and legal importance were touched upon during the Vienna Conference, especially in the field of international telecommunications co-operation. I am referring, inter alia, to the proposal of the Soviet Union and seven other nations concerning the creation of an international telecommunications satellite system, known as "INTERSPUTNIK". My country has not yet been able to study this project in detail and we are looking forward to receiving from its sponsors more information on the purposes and the structure of the envisaged system. It was therefore with very great interest that the Swedish delegation listened to what the representative of the USSR had to say on the subject only a few minutes ago.

Already at this stage it seems clear that the proposal for a system with the provisional name of INTERSPUTNIK raises certain questions as to how it could be reconciled with the already existing system for international telecommunications satellites, the INTELSAT. I think that most of us agree that it would be highly unfortunate if, because of lack of co-operation and mutual efforts to come to a general agreement, we should see the emergence of two, or perhaps more, international telecommunications satellite systems, all with global aspirations but differing fundamentally from both technical and conceptual points of view.

(Mr. Aström, Sweden)

During discussions in European space organs regarding the forthcoming negotiation of permanent arrangements of the now interim "INTELSAT", due to start on 24 February 1969, as well as during the Vienna Space Conference, Sweden has consistently urged that all efforts must be made to ensure that, in the words of General Assembly resolution 1721 D (XVI), "communication by means of satellites should be available to the nations of the world as soon as practicable on a global and non-discriminatory basis,".

When the question was considered by the European Conference on Space Telecommunications -- an organization which, as is well known is called for short (CETS) -- last May, a resolution was moved by Sweden and unanimously adopted, the fifth preambular paragraph of which reads as follows:

"Believing that in order to facilitate the establishment of a truly global organization, consideration should be given to means of associating countries Members of the United Nations and the International Telecommunication Union with the negotiations for the definitive arrangements and that for this purpose the matter ought to be considered by appropriate United Nations bodies".

We have been informed that the organizers of the "INTELSAT" Conference next year -- which I just mentioned -- are planning to invite not only Members of the organization but also Members of the United Nations and the specialized agencies who are not members of the organization.

This seems to us an important first step to bridge the possible differences between the existing system, the "INTELSAT", and any other emerging system such as the "INTERSPUTNIK", and pave the way for an ultimate universal system. The Swedish delegation listened with great interest to what the United States representative said to us yesterday about the intention of his Government to work for a global system.

One of the most remarkable achievements of the United Nations space activities last year was clearly the unanimous adoption by the General Assembly of resolution 2345 (XXII) commending the Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space.

(Mr. Aström, Sweden)

This agreement marks another important step in efforts towards creating a legal framework for space activities and co-operation.

However, as we know, the benefits to be derived from this agreement are not of immediate interest to any great number of countries. It is deeply regrettable that the prolonged debates on its natural corollary -- that is an agreement on liability for damage caused by the launching of objects into outer space -- have not yet led to any result. It is, indeed, a sad record that the Legal Sub-Committee was unable to complete the draft convention on the subject, despite the clear mandate given to the Outer Space Committee in resolution 2345 (XXII), operative paragraph 4: "to complete urgently the preparation of the draft agreement on liability ... and in any event, not later than the beginning of the General Assembly." May I recall that the twenty-third session of the General Assembly has started.

As the representative of India underlined yesterday, it was the understood assumption that all members of the Committee would make all efforts to facilitate the draft of the convention on liability in time for the twenty-third session of the General Assembly. The Swedish delegation for its part has been willing, and remains willing even at this late hour, to act in accordance with this assumption. We shall study what was just said by the representative of the Soviet Union with particular interest in this context.

Having touched briefly upon the Vienna Conference, upon the question of global systems, satellites and the record of the Legal Sub-Committee, may I now turn to another matter which, in the view of the Swedish Government, is of particular importance and great urgency. That is the question of direct broadcasting satellites. It can be reliably foreseen that within the relatively near future -- perhaps five years from now, perhaps even earlier -- systems will have been created and made operative by which fixed satellites will be able to transmit television and radio programmes directly to a large number of individual receivers on the ground -- that is to say, there will be no intermediate transmitting station between the satellite and a radio or television set in the home of the ordinary person, in the school-room, in the conference hall or in the village market square.

(Mr. Aström, Sweden)

It is obvious that broadcast or television satellites of the type I have referred to would have an enormous influence on existing broadcasting policies and systems. I do not wish to dramatize the situation, but we believe that it is safe to say that if one is to avoid chaos, it will be necessary, before technical developments have reached the stage when such satellites are put into operation, to establish some rules governing their utilization.

Broadcast and television satellites of this kind, it has been said before, but it might be worth repeating, can be used for good or for evil. It is easy to see what far-reaching benefits they could bring as instruments of mass education and as a powerful means of promoting understanding and friendship between peoples in this era of growing interdependence. It is also obvious that such satellites could be used for purposes contrary to the interests of single nations or to the promotion of peaceful relations between States.

Let me recall that the General Assembly last year requested the Outer Space Committee to study the technical feasibility of communications by direct broadcasts from satellites and the current and foreseeable developments in this field, as well as the implications of such developments.

When the matter came up for discussion in the Legal Sub-Committee in June this year, there was a general feeling that this work should be undertaken as soon as possible. It was decided to recommend to the Outer Space Committee that the Scientific and Technical Sub-Committee should consider the question of direct broadcasting satellites, with a view to preparing a study of the technical problems involved, enlisting whenever appropriate the assistance of the competent specialized agencies of the United Nations.

That was the recommendation of the Legal Sub-Committee in June. Since that time certain developments have taken place and certain information has been forthcoming which, in our view, would make it advisable and appropriate to tackle the matter in a somewhat different fashion. As the representative of Canada told us yesterday, "as was suggested at the Vienna Conference, satellites with very powerful transmitters can be produced within the next few years and direct television broadcast from satellites would be available in about five years."

(Mr. Aström, Sweden)

At the Conference, there was, consequently, in view of the new information that was forthcoming, a widespread feeling that a study of the practical, legal and social aspects, as well as the technical aspects, should be initiated as soon as possible.

(Mr. Astrom, Sweden)

The Swedish Government, having considered the matter carefully, has arrived at the conclusion that, for the sake of expediting the matter, the Committee might now consider recommending to the General Assembly the setting up of a special working group with the mandate to undertake a study of all aspects of this particular problem. The special working group, if set up, would in our view be instructed in collaboration with the Scientific and Technical Sub-Committee and the Legal Sub-Committee, enlisting whenever appropriate the assistance of the competent specialized agencies of the United Nations, to prepare a survey of the problems involved and to submit it as soon as possible to the Committee.

We feel that the mandate given to the Committee last year in operative paragraph 13 of General Assembly resolution 2260 (XXII) might also serve as the terms of reference for this working group, possibly with a few minor amendments or additions. I should like to recall the terms of that paragraph which stated that the Committee on the Peaceful Uses of Outer Space was instructed to "study the technical feasibility of communications of direct broadcast from satellites and the current and foreseeable developments in this field as well as the implications of such developments".

We feel that if a working group of this kind is set up, its first task would be to formulate a work programme, including fields of study and a tentative time-table. In our judgement there is already now sufficient information available as to the technical feasibility of broadcasting satellites to enable the working group to formulate such a work programme.

As to the size, composition and working methods of the group, we believe that a flexible approach would be appropriate. The precedents set by the work of the Special Working Group on a Navigation Services Satellite System in 1966 can be useful in this connexion.

Having dealt until now mainly with the procedural and institutional aspects of the problem, I should like briefly to indicate the kind of substantive questions which in our view a working group, if set up, would have to consider.

First of all there is the obvious need for some type of international regulation with regard to general principles of policy, as well as with regard to such practical matters as frequencies, etc. The need for this type of international regulation, particularly with regard to general lines of policy, is

(Mr. Astrom, Sweden)

evidenced by the fact that satellite communications will be introduced in countries with widely differing social and cultural backgrounds, at different stages of development, and with national broadcasting organizations working according to different patterns and with different objectives.

If new forms of international collaboration and agreement are not achieved, many States which cannot themselves operate or participate in the operation of satellite broadcasting would be placed in an unfavourable and disadvantageous position. The need for such arrangements varies from one country to another. The importance and impact of direct broadcasting satellites will obviously differ considerably, depending on the level of development of the receiving country. Political and social consequences will not be the same in those countries which possess a wide range of communications and information media as in those countries where satellite communications might become the only or at least the dominant modern means of communication and information.

Just as the possibility of world-wide satellite communications must be matched by international regulations on the same scale, such regulations will also be required to serve as a framework for the activities of specialized agencies and other international organizations.

Among the concrete questions which would require study the following may be cited:

How to secure the right of States to avail themselves of satellite communications and how to promote organizational and administrative arrangements to provide equitable access to satellite systems for all States with special regard to smaller and to developing countries.

Furthermore, how to develop the use of satellite communications by different users, in particular, existing national broadcasting corporations, at the lowest possible prices.

How to promote efforts of the developing countries to use communication satellites in the field of education and economic and social development.

How to ensure equitable use of the radio-frequency spectrum.

How to promote the use of satellite communications in the public interest and for peaceful purposes.

(Mr. Astrom, Sweden)

What I have now said should only serve to exemplify the kind of questions which we feel were in the minds of the General Assembly when it decided last year to instruct this Committee to study also the implications of direct broadcasting satellites along with their technical feasibility. A whole year will soon have passed without any substantive action on the decision of the General Assembly. We feel that the time has now come to take such action and we hope that the members of this Committee will share our view regarding the best way to tackle the matter.

Mr. ABDEL-GHANI (Secretary of the Committee): I should like to say a few words just to clarify what appears to be a misunderstanding with regard to document A/AC.105/L.44 entitled "Documentation on the United Nations Conference on the Exploration and Peaceful Uses of Outer Space". This document was prepared and submitted to the Committee only for the information of the Committee and possibly to facilitate the Committee's preparation of its own report to the General Assembly. The Committee has not been requested to approve or endorse document A/AC.105/L.44, but merely to take note of it.

Of course, if the Committee desires to do so, it can comment on the entire document or only specific portions of it. Thus, I should like to say a few words regarding chapters IX and X of the report which were dealt with specifically yesterday.

(Mr. Abdel-Ghani, Secretary)

Chapter 10 of this report gives an account of the nine group discussions held during the Conference. Those who participated in the Conference know that the group discussions were an important part of its work. The Secretariat therefore felt that a document without a meaningful account of the group discussions would not give members of the Committee or the representatives of any Member State a complete picture of the work of the Conference.

This chapter was prepared in draft form by my colleagues who served as scientific secretaries for the sessions of the Conference. It was sent in draft form to Doctor Sarabhai in India, who worked on that draft and introduced the necessary improvements and corrections and then sent it to the United Nations with his approval. This process, of course, took some time, and this was the reason why the document came somewhat late. However, I think that the chapter gives a summary of the group discussions in the Conference.

The other chapter, chapter 10, on the highlights of the papers presented to the various sessions of the Conference, should be read in connexion with the statements made by the Chairmen of the sessions included in chapter 8. The two chapters complement each other, as chapter 9 provides additional information on the papers presented to the Conference.

However, I should like to repeat that document A/AC.105/L.44 is not presented to the Committee for its approval or its endorsement, but for its information and to facilitate the Committee's preparation of its own report to the General Assembly.

Mr. MILLER (Canada): I do not wish to delay the adjournment of this meeting, but I should like to thank the Committee's secretary for the explanation of document A/AC.105/L.44 which he has just given to us, as my delegation may have been the one to which he was referring when we commented in our statement yesterday on this document.

We recognize that this document is indeed presented to us for information and to facilitate our work here in the adoption of a report, and, as I said yesterday, we think it forms a most useful basis for the Committee's report. What we are concerned about is that chapters 9 and 10, as the Committee's secretary has said, do not indicate their authorship. He has explained

(Mr. Miller, Canada)

to the Committee how it was drafted and we feel, on our part, that while we can easily agree to the forwarding of the material in chapters 9 and 10 for information and comment to the Assembly as well as to the Scientific and Technical Sub-Committee, we do feel that there should be some recognition of the difference in the quality of the two chapters to which I have referred as opposed to the rest of the report which is clearly identified as to authorship, be it person or country.

The meeting rose at 12.55 p.m.

VERBATIM RECORD OF THE FIFTY-SIXTH MEETING

Held on Wednesday, 16 October 1968, at 3 p.m.

Chairman:
later,

Mr. WALDHEIM
Mr. DIACONESCU

(Austria)
(Romania)

REPORT OF THE COMMITTEE TO THE GENERAL ASSEMBLY ON THE PREPARATIONS FOR THE ORGANIZATION AND PROCEEDINGS OF THE UNITED NATIONS CONFERENCE ON THE EXPLORATION AND PEACEFUL USES OF OUTER SPACE (GENERAL ASSEMBLY RESOLUTIONS 2221 (XXI) AND 2250 (S-V)): DOCUMENTATION ON THE UNITED NATIONS CONFERENCE ON THE EXPLORATION AND PEACEFUL USES OF OUTER SPACE (A/AC.105/L.44) (continued)

REPORT OF THE COMMITTEE TO THE GENERAL ASSEMBLY (GENERAL ASSEMBLY RESOLUTION 2260 (XXII)): REPORT OF THE LEGAL SUB-COMMITTEE (A/AC.105/45) (continued)

Mr. DARWIN (United Kingdom): Mr. Chairman, it gives the delegation of the United Kingdom great pleasure to welcome you back to New York in your capacity as Chairman of this Committee. Several delegations have already expressed their gratitude to you for the forethought, resource and efficiency with which the Government of Austria conducted the arrangements for the very successful Conference on the Exploration and Peaceful Uses of Outer Space, held at Vienna from 14 to 27 August.

If I may say so, that Conference, in which seventy-nine nations and more than 600 delegates and observers participated, can be looked upon as the crown of your achievements as Chairman of this Committee. Its calling owed a great deal to your own personal interest and efforts as our Chairman. Its success owed much to your efforts as Foreign Minister.

We are also very appreciative of the efforts of the Conference's Vice-President and Scientific Chairman, Dr. Sarabhai of India, and of all those who contributed to its work and to its success. I congratulate you, Sir, and thank you on behalf of my delegation and Government for all that you did to ensure its success.

We know from the documentation circulated by the Secretariat about the Vienna Conference that some 190 papers of both general and specialized interest were presented. Of this total, the British delegation presented eleven papers and an evening lecture. It has always been the policy of my Government to foster to the highest degree international co-operation in the field of outer space so that developments in this new dimension are shared with all and for the benefit of all.

(Mr. Darwin, United Kingdom)

Our Secretary-General, in the timely and wise introduction to his annual report, has pointed out that in order to ensure that the practical benefits of space exploration accrue to all countries irrespective of their degree of development, space activity must be carried out in an orderly fashion. We firmly support that view.

We now have before us proposals made by the Indian delegation whereby the momentum and publicity gained by the Vienna Conference will not be lost. The practical application of space activity is of the first importance to all countries. Ways must be found to develop the most effective use of resources in this field. But these techniques and their effective use are best understood by experts. We believe that, perhaps with the exception of the suggestions concerning publicity for the results of the Conference, which clearly require separate consideration, the matters arising out of it could best be considered, as Dr. Sarabhai himself suggested in his closing address at Vienna, by the Scientific and Technical Sub-Committee of this Committee. The International Atomic Energy Agency and the Food and Agriculture Organization and other interested agencies might first be asked to contribute their views, as relevant, on these proposals. Alternatively, we believe that they might be considered by an inter-departmental working party of the appropriate United Nations bodies and agencies, without commitment in either case to additional expenditure.

Many practical applications fall within the competence of particular specialized agencies; we are glad to see here the representatives of specialized agencies and we look forward to what they have to say to us during this meeting.

The Secretary-General, in the introduction to his annual report, goes on to express the hope that joint practical ventures bringing the benefits of space exploration to all nations will result from the publicity attracted by, and the knowledge disseminated at, the Vienna Conference that has just ended.

(Mr. Darwin, United Kingdom)

The Thumba Equatorial Sounding Rocket Launching Station in India is just 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 hopes, its eligibility for United Nations sponsorship is endorsed by the group of scientists who are to visit the Station during 1969. My country remains keen to offer scientists to be included in that group when the time comes, and we have noted with interest the information transmitted to the Committee by the Argentine national commission for space research under cover of the Argentine chargé d'affaires' letter of 10 June 1968 to the Chairman of this Committee.

I should like to take this opportunity briefly to speak about recent British achievements in the field of our domestic programme and of various collaborative space programmes. The United Kingdom started its own sounding rocket programme in 1957 and since then over 160 Skylark rockets have been launched from the Woomera range in collaboration with the Australian Government. More recently, a few of these rockets have had 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 enable work of similar timeliness and promise to be performed.

On the basis of these years of experience in the use of sounding rockets, the United Kingdom has been able to participate usefully in a number of collaborative programmes with several countries. One recent successful programme was with NASA and Pakistan where 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 of America from the European Satellite Research Organization's range at Kiruna in northern Sweden.

Plans are also being made and equipment being provisioned for further collaborative programmes using small rockets and probably involving launchings from the ranges at Thumba and Sonmiani in Pakistan.

(Mr. Darwin, United Kingdom)

In the field of regional co-operation, the United Kingdom is a founding member of the European Satellite Research Organization and has fully participated in all that Organization'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 Organization's second satellite was successfully launched on 3 October 1968, and 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 ESRO planned satellites.

But before concluding this section of my remarks, I cannot omit to mention the two latest spectacular achievements in the field of space exploration which are in the forefront of our minds. I should like to take this opportunity to congratulate the Soviet Union, through its representative present here, on the very successful circumnavigation of the moon accomplished by Zond V some ten days ago, in which the United Kingdom was able to participate through observations made by British scientists at Jodrell Bank. I also present our sincere congratulations to the United States on the successful launching and continued progress of its Apollo 7 manned space flight, now in its sixth day. This was clearly a feat of the highest technical competence and efficiency. I am sure we all hope that the capsule will complete its flight successfully and come to rest as planned in its rendezvous on the sea.

I now turn to matters under the third item of our agenda. The most important event of 1968 in the field of international co-operation within the United Nations was the opening for signature earlier this year of an agreement on the rescue of astronauts and the return of objects launched into outer space. Since that date, some seventy countries have signed the agreement. We hope that those States which have not signed the agreement will do so, and that the necessary instruments of ratification will in due course be deposited so that the agreement may enter into force.

By contrast, however, progress on another major instrument stemming from the outer space treaty in its content has been disappointingly slow. I mean of course the draft convention on the liability for damage arising from space

(Mr. Darwin, United Kingdom)

objects. A number of drafts were before the Legal Sub-Committee including the most recent text, namely, the interesting and constructive draft tabled by the Indian delegation, which has always followed this question with close interest. This text incorporated a number of points on which agreement had been reached. However, several contentious issues remain to be resolved before we can reach agreement on this important subject. My delegation would like to stress the need for speedy progress here, and we hope that, before the next meeting of the Legal Sub-Committee, Governments will give serious consideration to how some headway can be made on the six major points of difference which remain to be settled. These are: (i) the question of nuclear damage; (ii) the question of limitation of liability; (iii) the question of third-party settlement procedures; (iv) the position of international organizations; (v) the law governing measure of damage; and (vi) certain aspects of joint liability.

(Mr. Darwin, United Kingdom)

We were glad to hear this morning that the representative of the Soviet Union recognized substantially the same range of issues as the issues requiring urgent consideration. We shall study his remarks with great interest in the hope that they may help forward the discussion.

The questions which I have just listed are important, but they are not insoluble questions. With goodwill and collaboration they can be solved.

In particular, we hope that Governments will reconsider their positions on the law applicable to measure of damage and unresolved aspects of joint liability, concerning which the United Kingdom delegation submitted proposals in the light of the course of the debate. We find it difficult to see how it can seriously be argued 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 we were interested to hear this morning that the delegation of the Soviet Union is willing to lend some support to the proposal made in the Indian draft on this matter, as I understood him, but we fail to understand why some delegations are still reluctant to include nuclear damage in the convention. Agreement on this convention is, in the view of my delegation, an essential step in developing a legal régime for outer space. The United Kingdom attaches special importance to this subject and hopes that the next meeting of the Sub-Committee will show real progress towards the preparation of a generally acceptable draft.

The problem of the definition of outer space was referred by the lawyers to the Scientific and Technical Sub-Committee last autumn, but the scientists were unable to agree on any scientific or technical criteria upon which a definition for a lower limit for outer space could be based. We do not underestimate the difficulties of formulating such a definition: in view of the very rapid pace of space technology we do not believe it possible or desirable at this stage to attempt to define a lower limit for outer space. In a few years it may be possible to determine with some certainty the lowest point

(Mr. Darwin, United Kingdom)

in a satellite's orbit. We talk now in terms of fifty miles, but technically it is not inconceivable that satellites will orbit the earth at a lower level above its surface. We believe that further study should continue of the scientific and technical criteria.

We have somewhat similar reservations about being too specific at this stage in making recommendations on the utilization of outer space. During the summer the representative of France on the Legal Sub-Committee proposed that a register of space objects should be initiated. We welcome the French proposal for the registration of space objects, which too can be seen as a further step in the development of a legal régime in space. We are not altogether clear whether such a system of registration is intended to supersede the arrangements at present in force whereby States notify the Secretary-General of the United Nations of the placing of objects in orbit. We think the latter arrangement is useful, both in keeping nations informed of progress in the space field, and in avoiding possible collisions or hindrance or damage to experiments in outer space. With the increasing number of launchings, a uniform system of numbering, such as the French delegation have proposed, may also prove essential. No doubt the Legal Sub-Committee can turn its attention to this problem in due course.

A proposal by Czechoslovakia was also made which recommends that this Committee should "request the specialized agencies and the International Atomic Energy Agency to examine and report to it on the particular problems that have arisen or may arise from the use of outer space in the fields within their competence". We believe that the results of the enquiries addressed to the agencies should be considered in due course by the Legal Sub-Committee.

We have before us, also in the Legal Sub-Committee's report, a Swedish proposal urging consideration by the Scientific and Technical Sub-Committee of the whole question of direct broadcasting. We have also heard in this Committee -- with the greatest interest -- statements by the representative of Sweden and the representative of Canada which suggested that this Committee should recommend to the General Assembly the setting up of a special working

(Mr. Darwin, United States)

group to consider this subject. We sympathize with the concern felt over the implications of direct broadcasting -- concern felt by many countries. We should know the facts before we consider the implications and it seems right, therefore, to study and set out the technical and scientific aspects of the problem. We hope that the International Telecommunication Union would be closely associated in this consideration. It may be that a new working group, or the Scientific and Technical Sub-Committee itself, would be an appropriate forum for consideration of the technical aspects of the problem. When the facts are clearer we could then proceed without delay to an examination of the very real social and legal problems which arise in connexion with it. These questions should be considered in a group of appropriately qualified experts. But we believe that such a group will work best on the basis of factual and technical assessment of the real possibilities of direct broadcasting. We look forward to hearing the views of other members as to the best manner in which this important question may be handled.

(Mr. Darwin, United Kingdom)

We have noted with interest also the proposal made by the Soviet Union and a number of other countries for a draft agreement setting up an international global commercial satellite system, otherwise known as INTERSPUTNIK. While we have studied this agreement with interest, some aspects of the system do not immediately become clear from the texts of their proposals. Some fundamental features are not revealed, especially as the technical annexes are not yet available.

For example, who would own the satellites and in what share would their ownership be divided? What exchange of know-how and technical information would be involved in connexion with this system? These and similar questions immediately occur to those who examine this proposal, and I am sure that we shall be given answers to them in due course. We hope that we shall learn more about the details of this system during the course of this debate and the debate in the First Committee.

In the foregoing remarks I have not dealt with all points which arise before us, and I trust therefore that I will be permitted to intervene further, if necessary, on other points at a later stage in our debate.

The CHAIRMAN: I wish to state that it is of course possible to take the floor again at a later stage.

Mr. SOUZA e SILVA (Brazil): First of all I should like to extend to the Soviet Union and the United States delegations the congratulations of the Brazilian delegation for the successful carrying out of the Zond 5 and Apollo 7 experiments which represent a new chapter in the annals of human ingenuity and courage.

As this Committee convenes again one can hardly avoid mixed feelings on the work that has been done since we last met. On the one hand my delegation is very much encouraged by the hard and productive work done in Vienna by the United Nations Conference on the Exploration and Peaceful Uses of Outer Space. We are glad to acknowledge that a major cause of this success was the co-operation and hospitality of the Austrian Government and people, as well as your skill, Mr. Chairman, in presiding over the Conference. In evaluating the results of the Conference, I want to make mine the closing words of your statement, Mr. Chairman, when you pointed out:

(Mr. Souza e Silva, Brazil)

"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." (A/AC.105/L.44, page 82)

On the other hand the Brazilian delegation regrets that we have not been able in the Legal Sub-Committee to fulfil the task entrusted to us in operative paragraph 4 of General Assembly resolution 2345 (XXII), of submitting to the twenty-third General Assembly a draft agreement on liability for damage caused by the launching of objects into outer space. Concrete results are yet to be reached on the vital points of this question. My delegation has already dwelt at length on those specific points, so there is no need for me to repeat here our arguments.

My delegation limits itself to express not only its hopes that an early agreement on the question will be forthcoming, but also its strong belief that such agreement can and should be reached by all in the context of the work of the Legal Sub-Committee.

The convention on the rescue of astronauts will find much stronger support and much wider adherence, including that of my own Government, after we have completed and disposed of the convention on liability.

In its resolution 2260 (XXII) the General Assembly has requested this Committee "to study the technical feasibility of communications by direct broadcast from satellites and the current and foreseeable developments in this field as well as the implications of such developments". The problem was also the subject of a recommendation of the Legal Sub-Committee. More recently, during the Vienna Conference, it was indicated that such satellites will in the near future become operative, raising several questions of a technical, legal, political and social nature.

My delegation is thus gratified that Canada and Sweden are jointly preparing preliminary studies on these aspects and that they have suggested the establishment of a special working group to report to this Committee on the problems involved.

(Mr. Souza e Silva, Brazil)

Since the very beginning of the work of the Committee on the Peaceful Uses of Outer Space my delegation has frequently stressed the need for making space technology an instrument of peace and understanding among nations, preventing it from becoming the tool of political and ideological propaganda and of class struggle and religious and racial intolerance. It is high time for this Committee to find ways and devise methods for the implementation of this purpose.

Another lofty purpose that has frequently been included in General Assembly resolutions on outer space refers to the sharing by developing nations in the benefits of the space age. The main prerequisite for the attainment of this purpose is undoubtedly the transfer of science and space technology from the space Powers to the developing nations. However, much more could be accomplished in this field even in the sphere of bilateral co-operation.

It was with deep interest that my delegation heard the suggestions made by Ambassador Parthasarathi of India in his statement yesterday, particularly on the setting up of a small advisory group of specialists, and on arrangements regarding panel meetings, fellowships, service and technical assistance. In this matter my delegation will be guided by the conviction that the development of the present system of intercontinental co-operation on space matters should take place in the framework of the already existing organs, including the Secretariat of the United Nations.

Mr. KLAFFKOWSKI (Poland) (interpretation from French): The Polish delegation wishes to take this opportunity to offer its best wishes to you, Mr. Chairman, along with those that have already been addressed to you.

Poland is a member of the Conference on the Exploration and Peaceful Uses of Outer Space held in Vienna. Poland wishes to stress once again, in connexion with its statement today, the important role as organizer which was played by the Government of Austria, and personally by our Chairman.

(Mr. Klafkowski, Poland)

It is already a good tradition that our Committee addresses our most heartfelt congratulations and good wishes in connexion with further successes in the field of achievements in outer space. The Polish delegation wishes to be associated with all congratulations addressed to the Soviet Union, which has inter alia succeeded in sending a space vehicle, Zond 5, into orbit around the moon and in bringing it back to earth. We wish to associate ourselves likewise with the congratulations addressed to the United States, which has sent three astronauts in Apollo 7 on an extraordinary mission of eleven days around the earth as a preliminary operation for a trip to the moon. These experiments by two great space Powers prove that the scientific programmes of exploration of outer space are constantly progressing. It is true, as was pointed out yesterday by the representative of India, that outer space, which ten years ago was beyond the reach of man, is now becoming increasingly accessible. It is probable that the time for the conquest of outer space and its subordination to the whole of mankind is already very much at hand.

The Polish delegation is of the opinion that the Vienna Conference held last August demonstrated the increasing activity of the United Nations in this field. In the documents of that Conference, the Committee will find many fruitful results, from the theoretical as well as practical point of view. The results of this Conference in Vienna apply to scientific achievements as well as to social fields. They also affect the international and internal law of States. This is why the Polish delegation wishes to see this documentation made available as soon as possible to all scientific centres concerned throughout the world. The suggestions made in this respect by the delegation of India deserves study and implementation.

The proposals put forth by Dr. Sarabhai at the close of the Vienna Conference have spelled out the role and the tasks of our Scientific and Technical Sub-Committee.

I should like to add a few sentences to the report of the Legal Sub-Committee. That organ did not succeed, in the course of its last session, in achieving concrete results, either in the case of the settlement of damages caused by objects launched into outer space or in the case of a definition of that space itself. But, by and large the work of the Legal Sub-Committee

(Mr. Klafkowski, Poland)

must be assessed as being constructive. My delegation is convinced that the elaboration of a convention concerning the rescue of astronauts is an important step forward, both in terms of human and legal achievement. This is significant for the work of the Committee as a whole. We feel that it is necessary to continue and to accelerate this work, and in order to succeed in this task it is necessary to plan for a session of the Legal Sub-Committee in the first half of 1969, if this is possible in terms of the budget.

The Polish delegation wishes to limit itself to general comments, as was done by other delegations. We wish to make but one comment of detail concerning liability for damages caused by objects launched into outer space. The draft convention should avoid making an inventory of all possible occurrences of damage. It seems to us that it would be an impossible task from the legal point of view. It would be preferable to elaborate a general classification of damages which would protect the interests of all parties concerned.

The CHAIRMAN: This concludes the list of speakers from delegations present. We shall, of course, continue from the speakers' list tomorrow, but some of the specialized agencies have expressed the wish to address the Committee, with its permission, on questions within their field of activities.

I take this opportunity to welcome the presence of the representatives of the specialized agencies and COSPAR, and to pay a tribute to the contribution made by the specialized agencies and their representatives in Vienna during the Conference on the Exploration and Peaceful Uses of Outer Space. The Committee very much appreciates their active participation and contributions during the Conference.

Mr. DAVIES (World Meteorological Organization): Members of the Committee will no doubt recall that the World Meteorological Organization has for many years submitted reports to the Committee, and in this and other ways has kept the Committee informed of the progress being made for meteorological purposes. I shall, therefore, not review at this time the long history of WMO's activities in outer space matters.

(Mr. Davies, WMO)

Let me simply recall, however, that WMO has been active in this field from the beginning of the space age some eleven years ago, and that, thanks to the space programmes of the United States and the Soviet Union, an operational meteorological satellites system has been in operation for many years. By this means meteorological satellite data is now being made available to all countries of the world, either by relay from the station in the particular launching country, or by direct reception through the system known as Automatic Picture Transmission, or APT as we normally call it. Already there are some 300 APT receiving stations scattered throughout the world and the number is continually increasing.

To the meteorologist, therefore, outer space technology is not something which promises benefits. It is rather an accepted part of the global observational system, benefitting all countries of the world on a daily routine basis.

As I have said, I shall not dwell on the history of satellite meteorology; I shall, instead, simply refer to the significant developments in this field in the past year or so. One may look at these from two points of view: the general and the particular. As regards the former, the main event has, of course, been the Conference on the Exploration and Peaceful Uses of Outer Space held in Vienna in August, to which frequent reference has already been made in this session of the Committee.

(Mr. Davies. WMO)

The present and future applications of outer space techniques to meteorology were of course discussed at length during the Conference. Indeed there were, I understand, more papers presented under the theme of "meteorology" than under any other theme of the Conference. WMO presented a paper on the use of satellites in the new WMO global weather programme, to which the name "World Weather Watch" has been given. The Conference provided the means for a very useful exchange of views and plans between scientists concerned with satellite meteorology, and also the means for making present and future practical benefits and research possibilities better known to all participants and, indeed, to the world in general.

WMO therefore shares the view that the Conference may certainly be considered a success, and wishes to thank and to congratulate the Austrian authorities, as well as the United Nations Secretariat staff concerned with the detailed arrangements.

Turning now from the general to the particular -- that is, the purely meteorological point of view -- there have been several important developments in the last year. In the first place, the World Weather Watch formally came into existence on 1 January 1968, after several years of intensive planning in WMO. Members of the Committee will no doubt recall that the concept of World Weather Watch arose directly from developments in outer space, and the plan was in fact formulated by WMO in response to a request from the United Nations General Assembly itself -- a request contained in one of its early resolutions on international co-operation in the peaceful uses of outer space. Full details of the World Weather Watch plan and the associated implementation programme were reproduced in a WMO publication which was circulated to this Committee last year. I shall not, therefore, explain the details of the plan and programme at this time. It may be mentioned, however, that the United Nations interest and support for the World Weather Watch has been shown in various ways including, incidentally, the issue of a special World Weather Watch postage stamp a few weeks ago by the United Nations Postal Administration.

The implementation programme which came into force with World Weather Watch has made good progress and many important features of the plan have already been implemented, including the installation of many APT stations. An essential component of World Weather Watch is the global telecommunications system for the exchange, on a world-wide scale and on a day-to-day or even hour-to-hour basis, of the vast volume of processed and unprocessed meteorological data. At present,

(Mr. Davies. WMO)

this exchange is effected by a complex conventional telecommunication system. WMO is therefore interested not only in purely meteorological satellites, but also in communication satellites. At this point, I should like to acknowledge the unfailing co-operation which WMO receives from its sister agency, the International Telecommunication Union on all questions relating to meteorological telecommunications.

The past year may therefore be said to have been important in the field of satellite meteorology because it saw the successful beginning of World Weather Watch and its implementation programme. Another significant development during the year was the commencement of a vast new global atmospheric research programme, or GARP as we usually call it, in which satellites will need to play an important role. This programme has been undertaken as a joint venture by the International Council of Scientific Unions and WMO, and although WMO has had a working arrangement with ICSU for many years, a special new formal agreement has been signed by the two organizations to establish the basic arrangements for GARP. A joint organizing committee has been created, composed of twelve scientists of world repute in the field of atmospheric science and chaired by the brilliant and active Swedish scientist, Professor Bert Bolin. The joint organizing committee has already met and its work has commenced. A very small joint planning staff has been established to support the Committee and is housed in the WMO building in Geneva.

Only last week the COSPAR Six working group met in London at the request of the joint organizing committee to establish a realistic programme for the use of satellites in this research programme in the coming years. Thus, as was foreseen in 1961 by the General Assembly resolution to which I have already referred, satellites have opened the way to tremendous new research opportunities in the atmospheric sciences, and WMO and ICSU are on a joint basis ensuring that these opportunities are seized.

It is well recognized, of course, that this new research programme and indeed World Weather Watch as a whole cannot be fully successful unless scientific and technical staff are available in all countries in adequate numbers. In the context of outer space, the need is mainly to ensure that the visual satellite pictures of the cloud systems and the earth's surface, as well as the infra-red pictures and radiation data of various kinds, which are now available, are fully utilized.

(Mr. Davies, WMO)

This means that not only new staff, but also existing trained and experienced meteorologists, have now to be taught how to interpret and to utilize these valuable new data. WMO is therefore giving much attention to training in satellite meteorology. Various publications have been issued and have been distributed to all countries, and practical training seminars or workshops in the interpretation of meteorological satellite data are arranged normally on a regional basis in order to ensure that as many countries as possible benefit from them. Already seminars of this kind have been held in Washington, Moscow and Tokyo, and another will take place in a few weeks time in Melbourne, Australia.

There is much more that could be said on the progress being made in satellite meteorology. The extremely encouraging outcome of the United States experiments on the use of geo-stationary satellites for meteorological purposes, the no less encouraging progress being made in the American and French experiments using constant level balloons or observing the atmosphere with, in due course, a satellite collection system: these are but two of the many other points which could be described; but I fear I should abuse the patience of the Committee if I were to take the time necessary to do so.

(Mr. Davies, WMO)

I trust, however, that I have said enough to show that the past year has been one of great activity and progress in applying outer space technology to improve man's knowledge of the atmospheric processes and to apply this knowledge in practical ways for the benefit of all the countries of the world.

Before concluding, however, I would like briefly to refer to a quite different aspect of outer space activities. I refer to the report of the Legal Sub-Committee of this Committee. I have noted that in the report of the Sub-Committee, which is before you at this session, a recommendation is made that the specialized agencies should inform this Committee of any problems in the field of outer space which may arise and which they feel should be brought to the attention of the Committee. I simply wish to say that I see no difficulty whatsoever in complying with this request, in so far as the World Meteorological Organization is concerned, and, if this Committee approves the recommendation of the Sub-Committee, I shall certainly ensure that it is brought to the notice of the appropriate WMO body.

Quite apart, however, from any problems which may arise I shall, of course, endeavour to keep this Committee informed of the progress in our work, in so far as outer space activities are concerned. I have in mind oral statements of the kind I am now making, and also documents or reports. As regards the latter, the WMO annual progress reports on the planning of World Weather Watch have been forwarded to the Committee year by year for several years. Now that the plan has been approved this series of reports has naturally ceased. I am required, however, by WMO decisions to produce annual reports on the status of implementation of World Weather Watch throughout the world. The first of these reports will be issued shortly, and I shall be happy to ensure that copies be made available to the Committee, if it so wishes.

These annual reports will, of course, refer to the progress being made in implementing World Weather Watch as a whole, but it is thought they will be of interest to the Committee because of the information on outer space activities which they will contain and also because they will show how satellite meteorology is being incorporated into global meteorological programmes and activities as a whole. For, as I have already said, in the field of meteorology outer space technology is not something which promises benefits, it is rather an accepted part

(Mr. Davies, WMO)

of the global observational system which, in a quiet and, I think, unspectacular fashion, is already bringing real benefits to all countries of the world.

The CHAIRMAN: I thank the representative of the World Meteorological Organization for his contribution and for his statement.

Before giving the floor to the next speaker, I would like to make the following announcement. We will close the speakers' list tomorrow by 1 p.m., so I urge all delegations who wish to take the floor to inscribe their names on the speakers' list by that time.

We now have five speakers for our meeting tomorrow: Belgium, Japan, the United Arab Republic, Romania and Austria. I hope that other delegations who may wish to take the floor will make their intentions known as soon as possible, so that we might organize our future work. I do want to close the session, if possible, on Friday afternoon. In this connexion, I would like to suggest to the Committee that we hold an informal meeting -- a completely informal gathering -- tomorrow at 10 a.m. All those delegations which are interested in coming to this meeting -- and, I think, those which have made concrete proposals in the course of the debate -- and, of course, everyone else interested in participating in this gathering are kindly invited to join us.

This gathering will take place under my chairmanship, but it will be a completely informal meeting to find out what kind of procedure we should adopt in analysing the different proposals which were made in the course of our debates since yesterday.

As you know, a number of concrete suggestions and proposals were made by different delegations, and it is very important for the Chair, of course, to know how trends are and how we can proceed within the next few days. This meeting will last until 11.50 and we could then convene here again, in the same Conference Room, in order to continue the debate on the items before us.

I make this suggestion and I am, of course, in your hands. If I hear no objections, I take it that the Committee agrees to such an informal gathering tomorrow morning at 10 o'clock, in which case it would take place in Conference Room 8. The fact that this is a smaller Conference Room will, I think, facilitate our deliberations.

It was so decided.

The CHAIRMAN: I now call on the next speaker, the distinguished representative of the International Telecommunication Union.

Mr. FOULIQUEN (International Telecommunication Union) (interpretation from French): The International Telecommunication Union, which as a result of an agreement signed at Lake Success in 1947 has been recognized by the United Nations as the specialized agency in the field of telecommunications, is especially interested in space telecommunications for two reasons: to provide all those services using satellites for their own needs with telecommunications affording them efficient and interference-free operation and, when satellites are especially designed to handle communications between many points on earth, to ensure the integration of the system of which the satellites are a part with the conventional earth system.

At the Vienna Conference on the Exploration and Peaceful Uses of Outer Space, many delegations emphasized the essential role played by the ITU in the orderly development of space telecommunications.

(Mr. Pouliquen, ITU)

Document A/AC.105/L.41, concerning the activities of a number of international organizations in the field of outer space, gives a clear idea of the activities and structures of the ITU and also of the present and past activities of ITU in the field of space radio communications, and particularly of the Radio Communications Conference of 1963 and technical co-operation.

Since the drawing-up of this report, questions concerning outer space have been studied and decided upon by ITU. It is worthwhile summarizing the essential stages of these studies and decisions.

At its twenty-third session in April 1968, the Governing Council of the ITU took a number of decisions concerning outer space. Two of its resolutions deserve special attention. The first concerns the role of ITU in the field of space telecommunications. It appeared that a growing number of international organizations were interested in various aspects of the peaceful uses of outer space, although not all of them were fully aware of the essential role of the ITU in this field. The second resolution deals with the convening of world administrative space radiocommunications conference for 1970 or, possibly, early 1971, based upon the substantial progress achieved in this field.

It will have on its agenda, among other things, the following items: first, the revision of the administrative and technical regulations and the adoption of such new provisions as are necessary for the space-radio services and the radio-astronomy services which will ensure the efficient use of the spectrum; second, the consideration and revision as necessary of the provisions of the radio regulations pertaining to the aeronautical mobile and maritime mobile services and navigation in so far as the use of space techniques is concerned; third, the consideration and provision, as far as possible, of additional radio-frequency allocations for the space radio services; fourth, the revision and supplementation, as appropriate, of the existing technical criteria for frequency sharing between space and terrestrial systems and the establishment of criteria for sharing between satellite systems.

Because of the importance which the ITU attaches to these resolutions, they have been distributed for information purposes. Parallel with these decisions, the International Communications Consultative Committee of the ITU, which is especially concerned with the study of technical questions and questions of exploitation and standardization in the field of telecommunications, pursued its

(Mr. Pouliquen, ITU)

studies of space questions. These studies are of very special importance because they will provide the technical basis for the conference to be called in 1970 for the elaboration of regulations on space telecommunications.

In the course of a meeting devoted to broadcasting and television held in April 1968, it studied the very numerous and difficult technical problems raised by satellite broadcasting.

Since 1960, ITU has been engaged in these studies, which were called for in paragraph 13 of resolution 2260 (XXII). This information could be communicated to the Committee if it is so wished.

More recently, in September 1968, a meeting of the ICCR Committee entrusted with space matters was completed. It is physically impossible to give a succinct description of what was accomplished at that meeting. However, it might be pointed out that broadcasting and the distribution of programmes by satellite continued to be the object of studies. The question of frequency-sharing was studied in detail. In fact, most of the frequency bands used for space telecommunications are bands that are already used for terrestrial communications and especially by the herzian beam as well as other services. Therefore, very strict sharing norms must be established in order to avoid mutually harmful interference. This is an excellent demonstration of the fact that telecommunications are an indivisible whole.

Among the other problems dealt with at this meeting, let us mention radionavigation or, rather, the use of satellites by mobile services, both aeronautical and maritime, because these satellites should in fact meet the needs of radionavigation as well as the handling of communications necessary for aeroplanes and ships.

New subjects were also studied, such as the use of even higher frequencies than those so far utilized -- in other words, above 10,000 millihertz.

We might also mention the creation of a group entrusted with the study of questions relating to the use of the geostationary orbit. This is a very important problem because satellites are increasingly using this orbit, which offers obvious advantages since satellites placed therein are more or less immobile in relation to earth. Unfortunately, the number of available sites is limited. One might go so far as to say that all the positions on this orbit constitute a kind of natural resource, of a very special kind, no doubt, similar to the frequency range.

(Mr. Pouliquen, ITU)

The ICCR studies will continue intensively, since this Committee of the ITU will be holding meetings towards the end of 1969 and its plenary assembly will meet early in 1970.

The International Telegraphic and Telephonic Consultative Committee of the ITU is very particularly interested in the problems of handling and the quality of telegraphy and telephony, of transmissions and so forth, when the latter are transmitted by satellite. This Committee is at present holding its plenary assembly in Mar del Plata.

Thanks to the set of meetings and decisions by the Governing Council of the ITU, one might say that the ITU will in 1970 or perhaps early in 1971 be in a position to draw up regulations for space radiocommunications replacing the regulations of 1963. Moreover, we should mention the perfect co-operation that was established between the ITU and the international organizations responsible for certain applications of satellites. In particular, we should mention WMO, for its meteorological satellites, IMCO and ICAO, for radionavigation, and UNESCO, for the distribution and dissemination of broadcasting programmes. In actual fact, this co-operation dates back not only to the space era, since it was instituted much earlier and had already yielded fruits in the field of conventional telecommunications.

With reference more specifically to technical co-operation, the ITU is actively engaged in the organization of studies, and provides fellowships in this field. It will intensify its activities as the necessary funds are placed at its disposal by the United Nations Development Programme.

We should also mention the fact that the members of the Union offer possibilities for the training of personnel within the framework of bilateral or multilateral programmes.

Mr. MALAN (World Health Organization): Thank you, Mr. Chairman, for allowing WHO to state its position regarding the theme of this Conference.

We have listened with great interest to the contributions made so far by various delegations and by some of our sister organizations. While some of the latter unquestionably have a more direct concern than WHO in the exploration and peaceful uses of outer space, we still wish to record -- as we have already done at the fifth session of the Scientific and Technical Sub-Committee of this Conference in Vienna -- our potential interest in a number of aspects of this new venture of mankind.

It is true that we are still at the stage of collecting information; yet the studies so far undertaken have demonstrated the implications of the new science for the health field, as well as WHO's possible role in it. I should like, in this connexion, simply to list the areas of research which directly or indirectly concern the World Health Organization's province of responsibility. I shall limit myself to mentioning the most significant ones, the size and implications of which loom steadily larger as we take a closer look at them. The following is the list of these areas:

1. The contamination of outer space by pathogenic bacteria.
2. The effects of weightlessness, sensory deprivation, confinement, interference with the normal biological rhythm and other physical and mental stresses on man's health.
3. The application of telemetry for the study of different diseases (cardiovascular diseases, for example).
4. The genetic effects of certain types of radiation, especially ionizing radiation.
5. The use of telemetric devices in detecting and monitoring pathogenetic changes in patients.
6. The effect of health on nutrients of non-conventional origin.
7. Man's tolerance limits to chemical agents such as toxic gases, vapours and fumes and to the physical factors of the environment, such as noise, vibration, acceleration, heat, cold and changes in the pressure and composition of the air.

(Mr. Malan. WHO)

8. The development of mathematical models for the study of the behaviour of man-machine systems under simulated stress conditions.

9. The potential use of communication satellites for medical and for health education.

This list of areas of research will suffice, I believe, to show WHO's interest in the subject-matter of the Conference.

In addition, of course, we are all aware of the role medicine plays in connexion with the astronauts. For example, we have all heard of the extensive medical examinations undergone by the spacemen before, during and after their flights. I should like here to stress two points: first, as I mentioned before, we are still at the stage of collecting information; secondly, the work ahead of us is a task where collaboration is essential.

At the Vienna Conference on the Exploration and Peaceful Uses of Outer Space, Professor Kazenko suggested that WHO and UNESCO prepare a list of subjects for study. We in WHO welcome this kind of suggestion and are willing to explore the possibilities for practical action and ways in which the World Health Organization can contribute to the development of a science for the benefit of a world which, as Ambassador Wiggins pointed out yesterday, shows no political borders when seen from outer space.*

Mr. PORTER (COSPAR): COSPAR appreciates the opportunity granted to it by this body to have participated in the recent Conference in Vienna, and I call attention to the paper presented at that Conference by Professor Roy, President of COSPAR, on the benefits of membership in COSPAR.

In view of the availability of this recent information and previous reports which COSPAR has submitted to this body and to its Scientific and Technical Sub-Committee, I believe that I can be very brief in my comments here today.

I would mention first six categories of COSPAR activities directed primarily towards inspiring and giving direction to the work of scientists in countries which can support only modest efforts in space research. The

* Mr. Diaconescu (Romania), Vice-Chairman, took the Chair.

(Mr. Porter. COSPAR)

first category is the annual collection and publication of summary reports on current and planned space research activity of all national scientific organizations represented in COSPAR. These reports, I believe, have been found useful to scientists of all countries in planning their future space research work in such a way as to have the greatest cumulative scientific value. Second, the special symposia sessions on topics of interest to less advanced countries -- for example, rocket and satellite meteorology, use of artificial satellites for geodesy, problems of atmospheric circulation and instrumentation of small rockets. Third, the preparation and publication of technique manuals which describe in some detail methods to be used in certain types of space research, especially those using meteorological and geophysical sounding rockets. Fourth, the sponsorship of international meteorological rocket network programmes and associated brief seminars on upper atmospheric circulation for meteorological rocket research workers. Fifth, the distribution of current information about satellites that can be observed for scientific purposes by optical or radio means or from which continuous telemetry signals containing scientific information can be received. And, finally, organization of appropriate means for assigning orderly designations to all artificial earth satellites for maintaining world data centres for exchange of rocket and space research results and for co-ordinating meteorological and geophysical rocket launchings.

COSPAR held its eleventh plenary meeting in Tokyo, Japan, during the period 8-21 May 1968. Associated with this eleventh plenary meeting were several specialized symposia, the most significant of which perhaps was the one on solar flares jointly sponsored by the International Union of Geodesy and Geophysics (IUGG) and IAU. There was also a special symposium on instrumentation of scientific experiments to be carried on smaller rockets organized by the Japanese space council, and another on biological effects of radiation in space which was carried out jointly with the International Union of Biochemistry and the International Union of Biological Sciences.

(Mr. Porter, COSPAR)

At that session, COSPAR adopted some twenty-three formal decisions dealing with such matters as the scientific and technical aspects of satellite geodesy, administrative aspects of the reception of telemetry from satellites, interest in avoiding contamination or disturbance of cosmic dust at earth-moon vibration points, exchange in publication of information, co-ordination of rocket investigations of the upper atmosphere, concern about possible biological contamination of the planets and the desire that the COSPAR consultative group be convened as soon as possible to consider this situation and the establishment of a working group for space-related studies of the moon and planets.

(Mr. Porter, COSPAR)

Immediately following this eleventh plenary session, COSPAR sponsored a special series of lectures on stratospheric circulation for meteorological rocket experimenters, which was held at the Japanese meteorological agency during the period 20-23 May.

COSPAR also participated as one of the sponsoring organizations in a two-week symposium on magnetospheric physics, held in Washington during September 1968. This symposium was sponsored by COSPAR, the International Union of Pure and Applied Physics, the International Astronomical Union, URSI and IUGG. The hosts at this meeting were the United States Academy of Sciences and the NASA-Goddard Space-Flight Center. This was, I believe, undoubtedly an important meeting covering as it did all of the important new knowledge generated in this exciting new area of physical science during the past decade of space research.

COSPAR now expects to hold its twelfth plenary meeting at Prague, Czechoslovakia, from 11-24 May 1969. This meeting will include scientific symposia on atmospheric hydrogen, Thompson scattering, F-region ionospheric structure and winds, nutrition of man in space, biological rhythms and dynamics of satellites.

COSPAR will also co-sponsor with the International Union of Biophysics a meeting on irreversible thermodynamics and the origins of life, to be held in Boston during August of 1969.

COSPAR continues to be very active in support of the global atmospheric research programme -- as you have heard -- as a participant in the Joint Organizing Committee, the JOC, for that programme. As has already just been mentioned, Working Group Six has been meeting this month in London on a report covering global observational systems to be used in 1973 and an analysis of the improvements that could be made by deferring the experiment to 1974, 1975 or 1976. This report was specifically requested by the Joint Organizing Committee and COSPAR is endeavouring to prepare it in time for the meeting of the JOC early next year.

(Mr. Porter, COSPAR)

COSPAR has also been active in support of the Inter-Union Committee on Frequency Allocations for Radio Astronomy and Space Research, the body known as the IUCAF, which is COSPAR's principle contact with ITU.

On behalf of the President and the Bureau of COSPAR and all of my colleagues there, I thank you for the invitation to be present at this meeting and I express our desire to continue the useful relationship between COSPAR and the United Nations organizations which has been evident in the past.

The meeting rose at 4.55 p.m.

VERBATIM RECORD OF THE FIFTY-SEVENTH MEETING

Held on Thursday, 17 October 1968, at 10.30 a.m.

Chairman:

Mr. WALDHEIM

(Austria)

later,

Mr. DIACONESCU

(Romania)

REPORT OF THE COMMITTEE TO THE GENERAL ASSEMBLY ON THE PREPARATIONS FOR THE ORGANIZATION AND PROCEEDINGS OF THE UNITED NATIONS CONFERENCE ON THE EXPLORATION AND PEACEFUL USES OF OUTER SPACE (GENERAL ASSEMBLY RESOLUTIONS 2221 (XXI) AND 2250 (S-V)): DOCUMENTATION ON THE UNITED NATIONS CONFERENCE ON THE EXPLORATION AND PEACEFUL USES OF OUTER SPACE (A/AC.105/L.44) (continued)
REPORT OF THE COMMITTEE TO THE GENERAL ASSEMBLY (GENERAL ASSEMBLY RESOLUTION 2260 (XXII)): REPORT OF THE LEGAL SUB-COMMITTEE (A/AC.105/45) (continued)

Mr. TSURUOKA (Japan): My delegation is very happy to greet you, Sir, in your capacity as Chairman of the Committee and at the same time to express its appreciation for the role that you and your Government played in contributing so much to the Vienna Conference last August. I should like to join other delegates who have already paid tribute to the representative of the United States on the occasion of the successful launching of Apollo 7. I wish also to congratulate the representative of the Soviet Union on the success of Zond 5.

With regard to the second item on our agenda, we believe that the outer space Conference in Vienna was a real success. It was the first United Nations Conference the purpose of which was to inform the countries, particularly the developing States, of the practical benefits of the exploration and exploitation of outer space.

Now the problem is how to help the countries to obtain such practical benefits. In this respect, the representative of India has presented a proposal on various items, namely, publication of a pamphlet on the Conference, utilization of a film thereon, the setting up of an advisory group, arrangement of panels, fellowships, survey missions and technical assistance, and strengthening of the Outer Space Group of the Secretariat. In principle, we support these proposals made by India. We recall that the necessity of the expansion of the role of the United Nations was felt in Vienna. But with respect to the proposed advisory group which would generate new ideas on the arrangement of panels, fellowships, survey missions and technical assistance, we believe that it would be preferable for the Scientific and Technical Sub-Committee to do this work, and we reserve our position with regard to the source of the necessary funds for arrangement of panels, fellowships, survey missions and technical assistance. We support the strengthening of the Outer Space Group of the Secretariat, which may be necessitated by the above-mentioned activities.

(Mr. Tsuruoka, Japan)

Resolution 2345 (XXII) of the General Assembly, in its operative paragraph 4, called upon this Committee urgently to complete the preparation of the draft agreement on liability for damage caused by the launching of objects into outer space and, in any event, not later than the beginning of the present session of the General Assembly. Japan was one of the countries which insisted upon the importance of the relationship between an agreement on assistance to and the return of astronauts and space vehicles, and an agreement on liability for damage. Therefore it is to us a matter of regret and disappointment that the Legal Sub-Committee, during its session in June of this year, failed to complete the work of preparation of the draft agreement on liability for damage. Although the Sub-Committee reached agreement on some points, the crucial problems, such as nuclear damage, limitation on liability, international organizations, the law applicable to measure of damage and compulsory third party settlement of disputes, were left unresolved.

We should like to urge the Member States to co-operate in the early completion of the preparation of the draft agreement.

Mr. EL KONY (United Arab Republic): Mr. Chairman, it gives me great pleasure to associate my delegation with those who preceded me in welcoming you, Sir, in your capacity as Chairman of the Committee on the Peaceful Uses of Outer Space. Your wise guidance has always been a valuable asset for the constructive conclusion of the deliberations of this Committee.

As we meet now, spectacular events are being conducted successfully in outer space. Both the Soviet Union and the United States have accomplished outstanding feats which, a few years ago, were considered as belonging to the realm of science fiction. We should like to express our sincere congratulations to these two space Powers and hope that mankind as a whole will be able to derive benefits from their space achievements.

Last August the first United Nations Conference on the Exploration and Peaceful Uses of Outer Space convened at Vienna. We are all indebted to the Government and people of Austria and to you personally for your most gracious hospitality.

(Mr. El Kony, United
Arab Republic)

The main objective of the Conference was correctly stated by you as President of the Conference to be:

"the opening up of a fruitful dialogue between the space Powers and the non-space Powers, in order to explore all possibilities of bringing the practical benefits of space exploration and space technology to all nations, and in particular to the developing countries".

(Mr. El Kony, United Arab Republic)

In fact, the idea of a conference was envisaged mainly to assist the developing countries and to give a thrust to their quest in grasping the modern technology of outer space activities and its application. The Conference, to our satisfaction, has been a great success. In this regard we would like to pay a sincere tribute to the eminent Indian scientist, Dr. Sarabhai who, as Vice-President and Scientific Chairman of the Conference, greatly contributed to the success of the Conference.

Our appreciation goes also to the Executive Secretary of the Conference, Mr. Abdel-Ghani and his able staff.

During the deliberations of the Conference several important and constructive ideas were raised, discussed and received widespread support. It is up to us now, when preparing the report to the General Assembly to transform these ideas into a complete form so that the Assembly can pronounce itself on them.

In this connexion, I would like to emphasize the importance of following up the work of the Conference. The Secretary-General has rightly pointed out in his Note on the work of the Conference that the Committee on the Peaceful Uses of Outer Space should consider the ideas put forward at the Conference and make concrete recommendations. He further stated that "these recommendations must ensure that the resources and the capacity of the United Nations will be utilized most effectively in the most important effort to realize, as soon as possible, practical benefits for all people from the exploration of outer space."

The non-space Powers and, in particular, the developing countries have a great deal to gain from the practical applications of outer space research. It is, therefore, natural that the developing countries, including my own, should attach considerable importance to the attachment of a United Nations programme for training and education in the field of outer space activities in which only the privileged few are considered developed.

For the last few years the delegation of the United Arab Republic has had the opportunity to express proposals to this effect. During the debate in the First Committee, at the twenty-second session, my delegation requested that the space Powers, and those who conduct advanced research in outer space, should be requested to allocate several fellowships each year at their national research institutions at the behest of the United Nations. The United Nations role would be that

(Mr. El Kony, United Arab Republic)

of a clearing house for the application and for the selection of the best qualified, giving due regard to the needs of the developing countries. We also stated that we are inclined to believe that the United Nations could also make maximum use of the rocket launching station under its sponsorship. Training courses should be created at these stations to meet the needs of the developing countries. Financial assistance could also be extended to their specialists to enable them to participate in these courses. In resolution 2260 (XXII) the General Assembly responded favourably by requesting the Committee "to start at its next session the serious consideration of the suggestions and views regarding education and training in the field of the exploration and peaceful uses of outer space expressed in the General Assembly and in the Committee."

Yet, it seems that this recommendation which has been embodied in earlier General Assembly resolutions has not been given due consideration by the Committee. We would like to express our hope that the Committee, as a subsidiary body of the General Assembly, will always be in a position to heed and discharge effectively the request addressed to it.

In this regard I would like to refer to the interesting and constructive suggestion which Ambassador Parthasarathi, the representative of India, has proposed. The United Arab Republic delegation supports these ideas and acknowledges their importance. We hope the Committee will take a similar position.

In order to materialize the ideas expressed at the Conference, it is essential, at this stage, to conduct studies with a view to anticipating the required organizational arrangements for the future. It might be recalled that at the fifth session of the Scientific and Technical Sub-Committee, Austria, Iran and the United Arab Republic made some proposals on the desirability of strengthening the Outer Space Division. The Sub-Committee took note, but no action was adopted. It should be recalled also, in this connexion, that the non-aligned nations Conference, which met in 1961 at Belgrade, expressed the hope that the international community will, through collective action, establish an international agency with the view to promote and co-ordinate the human actions in the field of international co-operation in the peaceful uses of outer space.

(Mr. El Kony, United Arab Republic)

We are not proposing, at this stage, an agency. However we must give ample attention to the future needs of the international community. The least that could be done now is to consider all the proposals which have been put before the Committee and act positively on them.

I now turn to the proposal of Sweden on direct broadcasting from satellites. My delegation recognizes the urgency expressed by Ambassador Aström and we would like to fully support the Swedish suggestion.

In conclusion, I feel impelled to state that the 1968 balance-sheet of the work of the Legal Sub-Committee and the Technical and Scientific Sub-Committee did not meet our expectation. The Technical and Scientific Sub-Committee did not meet. The Legal Sub-Committee was unable to finalize the draft on liability for damage. We understand the difficulties involved; however, we would like to stress the various important humanitarian aspects involved in the Convention on liability. This fact by itself might give added impetus which should help in accomplishing its early formulation.

Mr. DIACONESCU (Romania) (interpretation from French): Since the last session of this Committee new achievements have marked the activities of States in the field of the exploration and peaceful uses of outer space. Quite recently the space vehicle Zond 5 travelled around the moon and returned successfully to us in a pre-established area. I avail myself of this opportunity to congratulate the delegation of the Soviet Union for this remarkable feat of Soviet science and technology.

May we also address our congratulations to the delegation of the United States of America whose vehicle Apollo 7, with a crew of three astronauts on board, for some days now has been orbiting around the earth in the great enterprise of preparing conditions for man's voyage to the moon.

The growing interest in space activities and the better understanding of the multiple advantages that the uses of space can offer mankind have occurred at different levels in many States. In my own country, Romania, this growing interest in space research is reflected, inter alia, in the creation in 1967

(Mr. Diaconescu, Romania)

of the Romanian Commission for Space Activities. This Commission which is a part of the National Council for Scientific Research, is the body responsible for the realization of my country's space programme.

From the point of view of international co-operation in the field of outer space the most outstanding event of the year undoubtedly was the first United Nations Conference on the Exploration and Peaceful Uses of Outer Space. At the ninth session of this Committee my delegation, referring to the significance of this Conference, expressed its conviction that the Conference in Vienna would offer all participants an excellent opportunity to have an exchange of views on the different aspects of space science and technology, with a view to arriving at useful conclusions as to the application of the results of space research to the needs of economic and social development.

(Mr. Diaconescu, Romania)

Today we are happy to note that the Vienna Conference was a true success. Perhaps it is rather premature fully to appreciate the true value of the conclusions that may be drawn from the intensive scientific confrontation that took place in the course of two weeks in the Austrian capital between the most eminent scientists in this field who represented seventy-eight countries as well as many international organizations directly concerned with space activities. We sincerely hope that these conclusions, once they are studied by Governments, will be the object of a thorough consideration by the Scientific and Technical Sub-Committee which might meet earlier than is customary in the following year.

In this connexion, we greatly appreciate the suggestion made by Mr. Sarabhai, the Vice-President and Scientific Chairman of the Conference, in his closing address, according to which the report of the Conference should be considered first by the Scientific and Technical Sub-Committee which could study in detail all its aspects and submit concrete proposals; the Committee on the Peaceful Uses of Outer Space and the United Nations would then be in a position to adopt them.

The proposals put forward in the course of the present session by the delegation of India and the proposals submitted by Sweden and Canada, which we are considering with great interest, give proof of the fact that Governments are determined not to allow the conclusions of the Vienna Conference to be left unimplemented. We believe that in the course of the present session of the Committee and, above all, on the occasion of its report to the First Committee, other suggestions and proposals will be put forward on the basis of the lessons to be drawn from the Vienna Conference. To our way of thinking it would be both timely and useful to include in our report to the General Assembly a recommendation to the effect that the results of the Vienna Conference be published by the United Nations in a pamphlet, as was proposed by the delegation of India.

I shall not leave this aspect of the question without expressing our sincere thanks to the Government of Austria which, because of its generosity and exemplary hospitality, has made a substantial contribution to the success of the Conference. The tribute of the Romanian delegation goes both to you, Mr. Chairman, for the mastery and devotion with which you in your triple capacity as Foreign Minister, as Chairman of this Committee, and finally as President of the Conference, have devoted yourself to the Conference and to its success.

(Mr. Disconescu, Romania)

Lastly, I take this opportunity to thank all the members of this Committee for the honour they have bestowed on my country in supporting the election of a Romanian representative, Mr. Spataru, for the post of Vice-Chairman of the seventh technical session of the Conference devoted to questions of teaching and information.

At the last session of the Legal Sub-Committee of our Committee the Romanian delegation endeavoured to make a contribution to efforts designed to lead to the fulfilment of the terms of reference entrusted to us under the terms of General Assembly resolution 2345 (XXII). Under this resolution the General Assembly requested the Committee on the Peaceful Uses of Outer Space to complete the elaboration of the draft agreement on liability for damage caused through the launching of objects into outer space, no later than the opening of the twenty-third session of the General Assembly, that is, to be submitted to the present session of the General Assembly.

As a signatory country of the Agreement on the Rescue of Astronauts, the Return of Astronauts, and the Return of Objects Launched into Outer Space, we would be interested to submit to the General Assembly at the present session the draft agreement called for which, by its very nature, represents only the other side of the same coin. Thus we would be fulfilling the mandate to which I have referred.

My delegation wishes to express the hope that the Legal Sub-Committee will without delay resume its work on the agreement in question, and that it will be in a position shortly to arrive at a generally acceptable draft agreement.

Mr. HAYMERLE (Austria): The Committee meets at a moment when a new inspiring page in the history of man's entry into outer space is being written. We wish to join other delegations in the sincere wishes to the three American astronauts who at this moment are approaching the completion of their ambitious and indeed breathtaking mission.

It is perhaps symbolic that our Committee is meeting at this same time, and it is certainly a challenge to us to continue our work with a similar dedication and determination.

(Mr. Haymerle, Austria)

To all countries actively engaged in the exploration of outer space, and in particular to the Soviet Union and the United States, I should like on this occasion to express again our sincere congratulations for their momentous achievements in this new field.

The Committee is examining the report which it will submit to the General Assembly on the results of the United Nations Conference on the Exploration and Peaceful Uses of Outer Space, in accordance with resolution 2221 (XXI), and the report which we will make to the General Assembly in accordance with resolution 2260 (XXII), on the various points dealt with by that resolution.

We have before us documentation prepared by the Secretary-General on the organization and the results of the Vienna Conference. It is a source of satisfaction to us that this document, as well as the statements of the speakers who have preceded me in this debate, have led to the general consensus that the Conference -- the first in the history of the United Nations in this field -- successfully accomplished the task entrusted to it and that its deliberations have proved to be useful.

Austria, which had the privilege of being the host country, is happy that it could make its modest contribution towards this positive and promising record. We wish to take this opportunity to express our appreciation to all delegations who in their interventions have found such kind words for the assistance which the Austrian Government was able to give to the preparation and organization of the Conference.

(Mr. Haymerle, Austria)

It has been repeatedly stressed that the Vienna Conference was not only intended to review and to praise the activities and achievements of the first decade of the space age. Its main objective was to be a first and tangible step in our endeavours to bring the benefits of space research and technology to all nations, in particular to the developing countries. Our work should now continue with increased momentum along the lines framed by the Conference. We hope that our Committee will play an active and effective role in this respect.

In the present discussion, a number of concrete proposals have been advanced as to the possible course of action we could take. All these suggestions deserve our full and careful consideration, and special attention by the Scientific and Technical Sub-Committee. The Vienna Conference has shown that there still exists a wide gap between those countries which are already in a position to assess the implications of space technology and those which, at this stage, are not yet aware of the full range of possibilities offered by space technology. The Conference has also demonstrated, however, that much can be done through the United Nations to bring this knowledge to all countries. My own country is a case in point. The fact that the Conference was held in Vienna has created considerable interest, not only in the general public and among scientists, but also in industry and among governmental authorities. We are now in the process of setting up an intergovernmental commission to deal with all aspects of possible space science applications, and we hope that this will have an influence on industrial planning and projects in Austria.

All proposals conducive to bringing the knowledge of space benefits to non-space Powers will therefore receive our most serious and sympathetic consideration. We have in this connexion listened with great interest, for instance, to the proposal made by the representative of India that action should be taken to arrange panel meetings on specific aspects of outer space research and benefits. May I recall that along the same lines the International Atomic Energy Agency has over the past year successfully organized seminars and panel meetings on items related to its field of work in different parts of the world.

(Mr. Haymerle, Austria)

We also recall in this connexion that the Economic Commission for Asia and the Far East has already expressed interest in questions of outer space applications and intends to hold a seminar on aerial satellite photography in 1969. The initial interest already shown by ECAFE and the countries of that region might well be encouraged by corresponding action within the framework of our Committee. One could also consider whether it would not be of value to hold meetings of our Committee from time to time at regional centres where those meetings would, I am convinced, arouse a great deal of interest in the countries of that region.

I should now like to turn to the second item of the agenda, the report of the Legal Sub-Committee. Like other delegations, we note with regret that the Sub-Committee was not able to complete its work on a draft agreement on liability. It appears that the Committee will thus be unable to submit this agreement to the General Assembly at its twenty-third session as was requested in resolution 2345 (XXII). When the Committee, and later the General Assembly, adopted last year the treaty on rescue and return, my delegation, like many others, had stressed the importance of completing at the earliest possible time an agreement on liability which we considered as complementary and of equal importance. We believe that we should recommend the urgent continuation of this work. As we have said in the Legal Sub-Committee, we believe that attention should now be focused on the following important issues which were discussed but not yet resolved by the Legal Sub-Committee, namely, (a) whether the Convention should exclude nuclear damage; (b) whether there should be any limitation of liability in amount; (c) whether the Convention should provide for compulsory third-party settlement of disputes; (d) the relationship between international organizations and the Convention; (e) the law applicable to measures of damage; and, finally, unresolved aspects of joint liability.

At this stage of our deliberations the Austrian delegation wishes to restrict its comments to the points to which I have just briefly referred. We trust that, in the spirit of co-operation which has always guided this Committee in the past, it will be possible again to submit to the General Assembly a report and recommendations which will reflect a consensus and common denominator of the views of all delegations around this table. In this respect, we are encouraged by the consultations which took place this morning.

Mr. RUDA (Argentina) (interpretation from Spanish): First of all, the Argentine delegation wishes to record its expression of thanks to our Chairman, Dr. Waldheim, for his presence in our midst in order to preside over this session of the Committee, an attitude we duly appreciate since we have very much in mind his serious responsibilities as Foreign Minister of his country. May we also express our recognition to him for his interest in and devotion to the work of this Committee and especially in the organization of the recent United Nations Conference on the Exploration and Peaceful Uses of Outer Space which was held in Vienna, to the results of which we shall refer later on.

We should also like to make another preliminary comment in connexion with the successful launching of Apollo 7, with which the United States has once again shown its capability and the judiciousness of its initiatives. My delegation associates itself with the congratulations tendered to the intrepid American astronauts and to all those who made this new conquest of outer space possible. Our congratulations go, too, to the Soviet Union for its success recently achieved in the circumnavigation of the moon.

The first item on our agenda is the consideration of the report of the recent Conference in Vienna. My country participated in this Conference with faith and enthusiasm since we attached special value to its objectives, namely, first, the consideration of the practical benefits flowing from the exploration of space on the basis of knowledge achieved in this field, and the extent to which non-space Powers, above all the developing countries, may enjoy such benefits, especially in respect to educational development. Secondly, the analysis of the available alternatives for non-space Powers in respect of international co-operation in space activities, having regard to the extent of United Nations participation.

To give an account of all that was decided upon at the Conference would call for an inordinately long statement. On the other hand, because of the mainly scientific aspect of the meeting, it would mean our going into a highly specialized field. For this reason, we shall only refer to those aspects of particular interest to my country.

The question to which we attach the greatest importance and which we wish to emphasize at this time is the significance and repercussions of every kind of programmes of research into the use of outer space for countries such as mine. One unequivocal result was derived from the Vienna Conference, namely, the question relating to the innumerable benefits of every kind which practical application of space activities will have on the development of all States.

(Mr. Ruda, Argentina)

It was demonstrated in a practical way that, through satellites, incalculable advantages may be derived for instance in the field of agriculture, determining in advance which areas should be sown, the type of crop that would be more appropriate, how the rains and climatic conditions in general may affect them, and even in determining the harvests and types of areas that are afflicted by certain diseases, what measures can be taken to save such crops.

With reference to meteorology, the use of satellites has led to extraordinary accuracy in forecasts, with all that this implies in terms of multiple application to sea and air navigation.

Education through television and satellite broadcasting, for its part, allows for the elaboration of all types of programmes by the greatest specialists in each field to be placed at the service of the great concentrations of urban students as well as those who live in remote areas and would not otherwise have access to them.

Lastly, I wish to cite but a few cases in order to stress the great importance of space technology in our time. All the possibilities offered by this subject are not projects on paper, but are realities which can and must be applied immediately. Apart from the great Powers which have the necessary technological advances, it is countries, such as my own, with a vast territory which are called upon to benefit directly from space science.

Argentina considers that no country today can ignore this phenomenon that is designed to alter the very basis of world progress; together with atomic energy -- the other scientific revolutionary experience of the twentieth century -- special priority must be given to the technology of outer space, and research and training of specialized personnel must be encouraged by every means. Also the greatest benefit should be drawn from the programmes that the space Powers and international bodies may place at the disposal of other Governments.

The competition between those who may wish to accede to the benefits of space science will become ever greater and more inexorable. Any opportunity that is wasted, any minute that is lost, will be detrimental to countries which at this stage remain passive or indolent. We believe that the time to act is now.

The second item on our agenda is the report of the Legal Sub-Committee in which the most important and controversial matters raised in the course of the recent deliberations in Geneva are mentioned. We regret that it was not possible to draw up the draft of the convention on liability for damage caused by

(Mr. Ruda, Argentina)

the launching of objects into outer space. My delegation is clearly aware of existing problems which hamper the drafting of the agreement; in other words, indirect and deferred damage, the inclusion of nuclear damage in the agreement in question, as well as the establishment of quantitative limitation of liability, the relationship between international organizations and the convention, the determination of the legislation to be applied for the assessment of damage, and so forth. But to our mind these difficulties cannot and should not hamper the preparation of the convention. We believe that with the goodwill of all the parties concerned it will be possible to fulfil the recommendations contained in operative paragraph 4 of General Assembly resolution 2345 (XXII) which was adopted last year.

The Argentine Government wishes at this time to reiterate its immediate and enthusiastic support of this Committee; not only have we always adhered to the principles upheld in favour of greater international co-operation and of the peaceful uses of outer space, but we have always participated directly in many activities of space research within the framework of co-operation between nations. The many experiments that have taken place from our launching base at Comodoro Rivadavia in 1962 have always been carried out in fulfilment of international programmes and with the participation of many nations. Moreover, Argentina has drawn up important plans for the new Argentine base at Mar Chiquita, near Mar del Plata. With reference to the activities of this base in the letter which was distributed as a document of this Committee (A/AC.105/44), my Government has highlighted the details of our own experiments and plans. Thus we wish to avail ourselves of this opportunity to reiterate the thanks of Argentina for the consideration given by this Committee to our request, and we wish to reiterate that in keeping with existing programmes, possibly during the months of June and July of 1969, we would find the most appropriate time to receive the visit of the group of scientists to which operative paragraph 6 of General Assembly resolution 2260 (XXII) refers.

The progress achieved by the Committee with respect to many aspects of this question is worthy of mention, and I must state that this is due essentially to the high spirit of co-operation and to the most valuable initiatives taken by the delegations round this table. We consider that now that the first stages of the work that led to the establishment of perhaps the most important objectives of the Committee, with respect to the peaceful uses of outer space, have been fulfilled,

(Mr. Ruda, Argentina)

it would now be desirable to tackle new aspects to bring greater vigour to this Committee so as to continue with a greater degree of flexibility and with better prospects for the achievement of such aims.

The Argentine delegation wishes to state that it has taken due note both of the initiatives submitted in Vienna, as well as of the comments and suggestions made at this session, and, particularly, those submitted by the delegations of Sweden and India, which we shall be considering in great detail with a constructive spirit and on which we shall be speaking in due course.

Mr. REIS (United States of America): When Ambassador Wiggins spoke in this Committee Tuesday afternoon, he said that the United States delegation would wish to say a few words in greater detail on the subject of the liability convention and, with your permission, Mr. Chairman, I would now do that.

As Ambassador Wiggins noted, this Committee does have a record of real accomplishment with regard to legal aspects of the exploration and use of outer space. It has helped to develop a common system of law of, we believe, a mutually beneficial sort. Since my country is one of the depositaries of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space including the Moon and Other Celestial Bodies, I might perhaps note, on behalf of my Government, that today eighty-nine States have signed that Treaty, thirty-one States have ratified it, and seven States have acceded to it.

Again, with regard to the Agreement on the Rescue of Astronauts, the Return of Astronauts, and the Return of Objects Launched into Outer Space, which was opened for signature on 22 April -- this spring -- today it has been signed by seventy-four States.

(Mr. Reis, United States)

It seems to my delegation that these achievements underscore the sorry absence of any similar progress in the work of this Committee on the legal side during this year. Many delegations have already noted that when the General Assembly approved the Astronaut Agreement on 19 December 1967, it called upon this Committee to complete the outer space liability convention "not later than the beginning of the twenty-third session, and to submit it to the Assembly at that session". We think that the Members of the United Nations who are not members of this Committee are going to have difficulty understanding why this work has not been accomplished, for all Members voted for General Assembly resolution 2345 (XXII) which laid down this deadline.

At its 1640th meeting on 19 December last year, just prior to the adoption by the Assembly of this resolution, Ambassador Goldberg, speaking for the United States, said:

"I should therefore like to reiterate the point which my Government made in the Committee, that we attach a high degree of importance to the prompt conclusion of a satisfactory convention on liability for damage caused by the launching of objects into outer space. We intend to participate actively and constructively in the drafting of that agreement.

"The resolution which the Assembly has just adopted calls on the Committee on the Peaceful Uses of Outer Space to complete an agreement on liability by the next session of the General Assembly, and I pledge the full and unstinting efforts of the United States to that end." /1640th plenary meeting, paras. 127 and 128/

Nor was the United States alone. The Soviet Union also pledged its best efforts, and, if I may, I would quote Ambassador Fedorenko who said at that same meeting:

"We consider that the approval of this draft Agreement creates favourable conditions for the next step to be taken: an agreement concerning liability for damage caused by launching objects into outer space. The Soviet Union will bend every effort in that direction." /Ibid., paras. 145 and 146/

In the view of the United States delegation there is no liability convention for the reason that some members have been unwilling or unable to take part in substantive negotiations. Those delegations sought to conceal their unwillingness or inability to enter into meaningful negotiations by raising

(Mr. Reis, United States)

so-called "matters of principle" concerning a number of aspects of the liability convention, which delegations had before that time thought required only goodwill and hard work to resolve.

I should like to give a few examples in an effort to demonstrate that the difficulties encountered during the June session of the Legal Sub-Committee with regard to the liability convention did not involve real matters of principle but were in fact a subterfuge.

First, the Soviet Union insisted that the liability convention should exclude nuclear damage that might be caused by space launchings and activities. Neither the United States nor other delegations which earlier addressed this subject were able to elicit the reasons for this attitude. Except for the Soviet Union, Hungary and Poland, all delegations which spoke on the issue urged that the convention should apply universally to any damage caused by space activities and should thus cover nuclear damage. For, after all, the purpose of the liability convention is to provide a simple and expeditious procedure by which a Government whose nationals have suffered injury can present appropriate claims for compensation to a launching State. It makes no difference to a claimant whether damage was caused by a nuclear power source aboard a space vehicle or a nuclear propulsion system, or, on the other hand, by some more conventional means of producing power aboard a satellite or of launching or manoeuvring a space vehicle.

Nevertheless, the Soviet Union took the position that nuclear damage was somehow "special" and that universal coverage of all types of damage would unduly complicate the convention. We did not at the time understand this point of view. We do not understand it now. Neither the liability treaties proposed by the United States and Belgium, nor the recent proposal advanced by India, makes any special provision for nuclear damage. Under all of these proposals, claims for losses caused by nuclear damage would be considered and compensated in the same way as any other kind of damage.

Second, the Soviet delegation suggested that matters of principle are involved in settling the question of what law should govern the determination of the appropriate amount of compensation in a particular case. I might say, by way of explanation, that in order to be effective the liability convention must bring

(Mr. Reis, United States)

to bear some system of law as the basis for determining what elements may be included in a claim, and thus the total amount that may rightfully be claimed.

From the beginning, the United States has advanced the view that problems concerning applicable law should be governed by an international law standard. On the other hand, Belgium has proposed that the law of the place where the injury occurred should control. The United States proposal would take into account the contemporary practice of States and seek to establish uniformity. The Belgian proposal would permit diversity in the interest of placing compensation squarely in the context of the social situation in which the injury arises. Good arguments can be advanced to support either proposal. Indeed, with goodwill, it seems to my delegation that the two differing approaches could conceivably be brought together in some satisfactory manner.

To our very considerable surprise, the Soviet Union and Hungary insisted during the June session that the law of the launching State should govern in these matters. This makes no sense at all; there is no justification for applying a system of law foreign -- and possibly unknown in its detail and jurisprudence -- to a person injured or killed far away from a launching State.

Third, those Legal Sub-Committee members who are also members of ESRO and ELDO quite naturally proposed that the liability convention should govern activities conducted not only by States but by such international organizations as the European Space Research Organization and the European Launcher Development Organization. They reminded the Legal Sub-Committee that the entire membership of the United Nations had agreed on a useful and desirable provision on international organizations in article 6 of the Astronaut Agreement as recently as 19 December last year. Under the Astronaut Agreement, parties are bound to rescue and return an astronaut, regardless of whether his activities arose from State exploration or a launching conducted by an international organization.

At the June meeting of the Legal Sub-Committee, the ESRO/ELDO countries made an identical proposal for the liability convention. According to their proposal, a State whose citizen is injured by a space activity conducted by an international organization would present its claim to that organization --

(Mr. Reis, United States)

assuming that at least half the members of the organization had ratified the outer space treaty and that the organization itself had declared its acceptance of the rights and obligations of the liability convention. This proposal met with wide approval. To general surprise, however, the Soviet delegation took the position that, while an agreed international organization clause was acceptable for the Astronaut Agreement, an identical clause was not acceptable for the liability convention. At that time, the Soviet delegation contended that the Astronaut Agreement related to "humanitarian matters" but that no humanitarian interests were involved in the liability convention and that, as a matter of consequence, there would be no reason to adopt a similarly forthcoming attitude. We found this attitude impossible to understand for, after all, the liability convention deals with personal injury and death, and it is hard to conceive of a more humanitarian matter.

Yesterday morning, Professor Blagonravov, the distinguished representative of the Soviet Union, told the Committee that the Soviet Union was ready to accept a requirement for presentation of a claim to an international organization first, with right of recourse by the claimant against individual States members of the organization only if the organization were to fail to make appropriate payment after a reasonable period of time. My delegation was very glad to hear him make this statement.

(Mr. Reis, United States)

These are but three examples of issues that the Legal Sub-Committee should easily have resolved. As I have noted, however, the Sub-Committee was forced to devote the major part of its attention to these issues, and the result was that there was little time to discuss matters of real significance, matters on which Governments might respectively differ. These relate to provisions for the settlement of unresolved claims and limitation of liability, and with your permission I will review these very briefly.

What should be the fate of a claim upon which a claimant State and the launching State do not agree? What is to happen in such a case? The United States has long proposed that if, after some reasonable time for bilateral negotiations these negotiations were to fail to produce a mutually acceptable result, the claimant State should be entitled to bring its claim to a claims commission. The commission would be empowered to determine whether or not responsibility exists and, if responsibility were established, the amount of the claim. We consider that there must be some such procedure in order to provide balance to the unequal negotiating positions of the claimant and launching States.

In Geneva, the Soviet delegation took the position that arbitration of unresolved liability claims involving legal and financial questions would involve a claims commission in what it termed political issues. It said that there was no reason to anticipate that a launching State would fail to pay a just claim, and it denounced a United States suggestion that claimant and launching States should be entitled to appeal from a claims commission decision to the International Court of Justice.

A second substantial unresolved issue concerns limitation of liability. At the Legal Sub-Committee session, the United States delegation reviewed existing international agreements and municipal law provisions on liability in related fields, for example liability arising out of damage caused by the blow-up of land-based reactors, of marine reactors, or of aircraft. We stated our view that there ought to be some limit based on these recent precedents.

During the last week of the Legal Sub-Committee, the Indian delegation introduced a complete new liability treaty proposal. According to Ambassador Krishna Rao, the Indian delegation's purpose in advancing this new proposal was to provide a basis for the reconsideration of positions before the

(Mr. Reis, United States)

convening of the twenty-third session of the General Assembly. While we do not agree with certain aspects of the Indian proposal, we very much value its having been made and we hope that all Governments are giving it the attention it deserves. For, without greater willingness on the part of certain Governments to negotiate on a more reasonable basis, the United Nations will never arrive at a liability convention. The Outer Space Committee and the Legal Sub-Committee have been discussing the liability project since 1962. And that, to put it mildly, is too long.

We support the Legal Sub-Committee recommendation that the Sub-Committee should meet when this Committee considers that substantial progress can be made. We hope that hard reasons for expecting progress may soon develop, and we hope that those Governments that have not thus far considered the liability project to be worthy of the attention it deserves, and the attention which they solemnly promised to give it on 19 December last year, will give further consideration to this matter.

The CHAIRMAN (interpretation from French): This morning's list of speakers has been exhausted. We shall therefore adjourn now and meet again at 3 o'clock this afternoon.

Before adjourning, our Committee Secretary has an announcement to make.

Mr. ROBINSON (Secretariat): I would merely repeat the statement made by the Chairman that the list of speakers will be closed at 1 o'clock. Any Member State wishing to speak must therefore inscribe its name now.

The meeting rose at 12.55 p.m.

VERBATIM RECORD OF THE FIFTY-EIGHTH MEETING
Held on Thursday, 17 October 1968, at 3 p.m.

Chairman:

Mr. WALDHEIM

(Austria)

REPORT OF THE COMMITTEE TO THE GENERAL ASSEMBLY ON THE PREPARATIONS FOR THE ORGANIZATION AND PROCEEDINGS OF THE UNITED NATIONS CONFERENCE ON THE EXPLORATION AND PEACEFUL USES OF OUTER SPACE (GENERAL ASSEMBLY RESOLUTIONS 2221 (XXI) AND 2250 (S-V)): DOCUMENTATION ON THE UNITED NATIONS CONFERENCE ON THE EXPLORATION AND PEACEFUL USES OF OUTER SPACE (A/AC.105/L.44) (continued)
REPORT OF THE COMMITTEE TO THE GENERAL ASSEMBLY (GENERAL ASSEMBLY RESOLUTION 2260 (XXII)): REPORT OF THE LEGAL SUB-COMMITTEE (A/AC.105/45) (continued)

Mr. BERARD (France) (interpretation from French): As each year, the session of the Committee on the Peaceful Uses of Outer Space gives us an opportunity to take stock of the work done under its aegis and to outline the general direction that we wish to impart to United Nations action in the field of space.

We are, I must say, doubly pleased to see you, Mr. Chairman, preside over the eleventh session of the Committee. First of all I am very pleased to hail in you a former colleague and, if I may say so, a friend, whose duties of a very high order have temporarily removed from the United Nations. Moreover, this year I have the pleasant duty to comment upon the work of the Vienna Conference on the Exploration and Peaceful Uses of Outer Space, which you have directed with so much talent and competence. No one can question the importance of this first international space conference, to the success of which you have very largely contributed, Mr. Chairman. May I therefore be permitted to address to you the sincere thanks of the French delegation as well as our expression of gratitude with respect to the Austrian Government which has spared no effort in facilitating the work of that Conference.

The year that has just elapsed certainly constitutes an important landmark in the development of space technology, and the results that can be observed in the fall of 1968 are certainly quite satisfactory. Apart from the launching of a series of artificial satellites of the cosmos category, the USSR has improved the procedure for re-entry into the atmosphere. The recovery of Zond 5 after a seven-day flight around the moon is a remarkable exploit. We are happy to be able to congratulate the Soviet Union for this brilliant success.

(Mr. Berard, France)

The pursuit of the Apollo programme by the United States, and in particular the launching a few days ago of Apollo 7, shows the mastery which the United States has acquired in the technique of manned flights. In addressing our congratulations to the United States, we wish it complete success as it proceeds with its space programme in the course of the next few years.

Our congratulations likewise go to the scientists and technologists of Australia for the launching of the satellite Wresat 1.

Lastly, we are happy to note that in the course of this past year other countries have continued research in the space field.

I should like now to present the comments of the French delegation on the work of the Vienna Conference. In fact, it is more or less a period of ten years which the Vienna Conference has summarized in its two weeks of work. But it has not only registered the state of progress in the space research programmes or taken stock of the achievements in space exploration. Its programme was somewhat more ambitious.

(Mr. Berard, France)

It was of far greater interest for the international community as a whole. In fact, the whole point was to study possible applications of space research and technology and the benefits which the developing countries might draw from the peaceful uses of outer space.

At this point we should like to pay a tribute to Dr. Sarabhai, Vice-President and Scientific Chairman of the Conference, who so efficiently organized and animated the thematic meetings, discussion groups and evening conferences at which French experts had the honour of taking part.

To draw clear-cut conclusions from the body of statements made at Vienna is, of course, a rather difficult task. It appeared difficult, in the course of the work of the Conference, to determine with any degree of accuracy the exact usefulness of space technology as compared to land technology. Nevertheless, it already seems that the field of telecommunications is the one where space techniques are most likely to be of immediate interest.

The Conference made it possible for numerous States to make known their views on this subject. It is within this context that my delegation has welcomed with considerable interest the Soviet proposal concerning the establishment of a world telecommunications organization by satellites known as Intersputnik. This is a problem to which we attach great importance because it is necessary to ensure efficient co-operation as contemplated in the 1967 treaty, and to ensure order and equality in space activities.

To bring to a conclusion all of these intentions it seemed to my delegation to be necessary to set up a single world telecommunications organization by satellites whose role would be to harmonize the activity of the various satellites which each country might wish to place in orbit for its external communications and ultimately, after having agreed upon certain elements with the partners of their choice. The characteristics of such an organization should be as follows.

Its structure should be such that no State could dominate it. It should have a general assembly of all the member States, a more restricted council or board, and an international secretariat. Voting would not be weighted.

Secondly, it should be responsible for harmonizing and co-ordinating, and therefore to some extent introducing regulations for the management and operation of satellites. The organization would not be the owner of the satellites and would not itself carry out any of those operations. It would thus avoid being both judge and party.

(Mr. Berard, France)

Thirdly, the ownership of satellites would be in the hands of consortiums consisting of States which are prepared to participate, in each case, in the financing of construction operations, the purchase or the location, the placing into orbit, and the management and operation of the projects concerned.

Each satellite would, therefore, in principle correspond to a specific consortium, and the decisions there would be taken in accordance with rules set up by the States at the time of the formation of the organization.

The Conference likewise highlighted the revolutionary character of the use of satellites in other fields such as education, meteorology, air and sea navigation, and the making of an inventory of the resources of the earth.

As regards the application of space technology to education, particularly by means of television, it seems that none of the Governments which studied the problem have as yet come to any specific practical conclusions, but each is aware of the interest inherent in the new techniques for developing countries to the extent that they can, through these technologies, solve a large number of the problems confronting them.

In the meteorological field, the applied satellites would make it possible to provide an over-all view of the meteorological situation at any given time, and thereby facilitate short-term forecasting.

We have carefully studied the proposals made by Mr. Sarabhai regarding the publication of Conference documents and the establishment of groups of experts responsible for studying any given subject. It is certain that detailed discussions among experts could enable headway to be made in the study of certain problems of general application. This would also contribute to enlightening countries which do not have any specialists in conducting such studies. We would like to draw the attention of the Scientific and Technical Sub-Committee to these suggestions.

Now I should like to speak on the report of the Legal Sub-Committee of the Committee on the Peaceful Uses of Outer Space at its seventh session. At previous sessions in Geneva and New York, the French delegation had expressed the hope that it might be possible to come to an agreement rapidly concerning liability for damage. It is with regret that my delegation notes the absence of any tangible results in spite of minor progress which was achieved this year.

(Mr. Berard, France)

Nevertheless, we should like to thank the delegation of India, which presented at this session of the Sub-Committee a draft convention and, subsequently, a second revised text which took into account points on which provisional agreement had been reached. For its part, France participated actively in the work on liability for damages. With a number of delegations, the French delegation proposed that Governments should centre their attention on those points which are still a source of controversy. It might even be wondered whether it might not be desirable for members of the Legal Sub-Committee to make their views clearly known on those points which are the principal stumbling blocks in the discussions, before any work on drafting is actually undertaken. As far as it is concerned, the French delegation has already had occasion to present its views on these various questions.

In order to abide by the principle of objective liability and to safeguard the interests of the victims, it seems to us necessary to retain as a provision the application of the law of the territory of damage. The same principle applies, in our opinion, to any financial limitation of liability. In addition, recourse to the concept of risk as applied to damages incurred by third parties has as its consequence the need to ensure unlimited coverage for damage incurred in connexion with space activity.

On the other hand, our delegation is in favour of the inclusion of nuclear damage in the Convention. Moreover, we are in favour of the mandatory settlement of disputes through an arbitration procedure.

Lastly, we consider that it is necessary to take into consideration the problem raised by international organizations engaged in space activities. As we pointed out in Geneva this year, we hope that the work will be continued with a view to elaborating of a definition of outer space as a concept. There is a need for this. It is indeed necessary to circumscribe the concept of space activity with a view to creating order in this new field of human progress.

It is because of the same preoccupation that the French delegation considers the question of the uses of outer space as one which is of unquestionable importance. We have already had occasion to highlight the dichotomy which exists between the two great principles of the treaty, the principle according to which States have the right freely to engage in space activities, and, on the other hand, the principle according to which such activities should be conducted for the welfare and in the interests of all countries.

(Mr. Berard, France)

In order to ensure the harmonization of these two principles, it seems to be necessary to consider with due attention the effects and the consequences of space activities that might be undertaken within the context of complete freedom. As of now, the Swedish delegation has proposed that one of the elements of space research should be made the subject of detailed study. This involves the problem of direct broadcasting satellites.

In the opinion of my delegation, it is desirable for the various space activities to result in investigations of this type, in which all the scientific, technical, economic, legal and social problems are taken into consideration. It is in this spirit that my delegation proposes to request the specialized agencies and the International Atomic Energy Agency to be good enough to examine the problems that have been raised, or which may be raised, in connexion with the use of outer space. We earnestly hope that the results of such a study, which has been recommended by the Legal Sub-Committee, will shed light upon the advantages and the drawbacks that may be inherent in certain uses of outer space.

Once these various items of information are in hand, our Committee will be able to identify the various space activities calling for regulation. It would then be for the two Sub-Committees in the fields falling within their competence to prepare the regulations and texts, which will then make it possible to safeguard the balance contained in the Treaty of 1967.

Lastly, we wish to express our regret that the Legal Sub-Committee was unable to accede to our proposal to place on the agenda for its next session the study of a draft convention dealing with the registration of objects launched into space and designed to make it possible to explore and use outer space in a regulated fashion.

We hope that certain questions will be taken up again very soon, given the practical interest inherent in an international arrangement on this subject.

These are the comments that my delegation intended to present in connexion with the points that are included in the agenda of our Committee.

Mr. TARDOS (Hungary): I wish to make a few remarks upon the subjects before the Committee, but first of all I should like to join those who have already congratulated the Soviet Union on the successful mission of Zond 5, and the United States on the launching of Apollo 7.

In commenting upon the Conference on the Exploration and Peaceful Use of Outer Space, my delegation cannot fail to express its appreciation to the Government of Austria for the role it played in acting as host and providing facilities for the Conference. We think that the Conference was successful. It contributed greatly to the cause of international co-operation in the peaceful use of outer space and to a better understanding of the problems involved. The Conference actually gave a survey of the present level of space technology, the trends in research and in the peaceful application of achievements. The papers submitted and the discussions held revealed the wide scope of possibilities in applying for the benefit of mankind the results of this relatively young branch of science. The Conference highlighted the scientific and practical problems and aired a set of interesting proposals. We all are aware of the financial burdens of research and even of the application of new discoveries in space science. Therefore, we have to recognize the importance of joint undertakings of international co-operation.

Bearing in mind these factors, my delegation shares the view of Mr. Sarabhai, Scientific Chairman of the Conference, who in his closing statement said that:

"It would be appropriate if the reports of this Conference are first considered by the Scientific and Technical Sub-Committee of the Committee on the Peaceful Uses of Outer Space." (A/AC.105/L.44, page 80).

We deem it very important that the ideas expressed during the Conference, including of course those of Mr. Sarabhai, be given thorough consideration by technical experts, and the best place for this is indeed the Scientific and Technical Sub-Committee.

Yesterday we had the opportunity to hear the statements of the representatives of WMO, WHO, ITU and COSPAR concerning their respective activities in the application of the achievements of space science, the international co-operation they organize and implement, and the technical assistance rendered by them; and we know that a great and ever growing number of international scientific associations are participating in the international exchange of views and the dissemination of know-how. Therefore, my delegation is of the opinion that a

(Mr. Tardos, Hungary)

Sub-Committee survey of the records of the Vienna Conference should bear in mind the importance of avoiding any duplication of work or any overlapping. In making recommendations for the follow-up measures of the Conference, the Sub-Committee should clearly specify the organization in whose competence the action proposed should belong. Space science is a very practical and a very expensive activity. Therefore, we do not see any justified need, nor can we afford, to build new machinery for international co-operation, since we can make use of the technical and human potentials of the existing specialized agencies or other channels of technical co-operation.

The delegation of Sweden proposed the urgent establishment of a working group on direct radio broadcasting satellites, but up to now we fail to hear convincing arguments as to whether the proposal would not duplicate the work of the ITU in this field, or whether it could not be tackled at this technical study stage by that organization; we also fail to hear the outlines of the terms of reference of the working group. We had good reason to expect that the problem would be dealt with by the Scientific and Technical Sub-Committee, so that we could prepare a prudent stand on the proposal. Therefore, our only wish if the Committee acts now concerning the composition of the group is that we receive assurance that all interested members of the Committee will be allowed to participate in the work of the group.

Turning now to the work of the Legal Sub-Committee, my delegation understands those who expressed disappointment over the inconclusiveness of the discussion on the draft agreement on liability for damage caused by objects launched into outer space. We share their disappointment because we consider this problem very important and we are greatly concerned that it should be solved.

(Mr. Tardos, Hungary)

This is shown by the very fact that years ago the Hungarian delegation itself introduced a draft and, in the light of the discussion, we made numerous changes in the text. But we have to recognize that a careful consideration of any draft lays bare new ideas in the form of amendments which then prolong the discussion. If we bear in mind that, during the last session, two new complete texts for the draft convention were submitted, the fact that the work has not been concluded should not surprise us. Despite the existing differences, my delegation firmly believes that these differences could be bridged at the next session of the Sub-Committee. We entertain the hope that further drafts will not complicate the Sub-Committee's deliberations, and that we shall be able to concentrate our attention on the examination of the existing texts.

The Hungarian delegation heard with great surprise this morning the statement of the representative of the United States in which he characterized the position of other delegations as senseless and not leading to a solution of the problems of liability. Instead of returning this unwarranted compliment -- which would be easy, indeed -- we examine the question with serious attention and in a spirit of fruitful co-operation. The Hungarian delegation continues its efforts to reach an agreement on that problem.

Finally, I should like to comment on the task of the present session of this Committee. In our opinion, the Committee should:

- (a) Invite the Scientific and Technical Sub-Committee to give careful consideration to the record of the United Nations Conference on the Exploration and Peaceful Uses of Outer Space and to make practical recommendations in the light of the deliberations of this session on the subject;
- (b) Express its appreciation to the Government of Austria for its contribution to the success of the Conference on the Exploration and Peaceful Uses of Outer Space;
- (c) Invite the Legal Sub-Committee to continue as a matter of high priority its work on an international draft agreement on liability;
- (d) Request the Secretary-General to make it feasible for both Sub-Committees to hold a session during the first half of 1969; and
- (e) Report to the General Assembly the above steps of our Committee, adding to the report in the form of an annex the numbers of the documents before us concerning the reports of the Legal Sub-Committee and of the Vienna Conference.

Mr. GOTLIEB (Canada): Speaking to this Committee on 16 December last year, the Canadian representative observed that, primarily because of its humanitarian aspects, Canada was very pleased to support the consensus draft agreement on assistance to and return of astronauts and space objects as a notable achievement in the developing law of outer space. He also said that he hoped, as the report of the Legal Sub-Committee's sixth session indicated, that attention would now be concentrated on obtaining similar agreement on a draft convention on liability for damage caused by the launching of objects into outer space.

Unfortunately, despite its concentrated efforts, the Legal Sub-Committee has again had to report its failure to draft such a convention. This is of profound disappointment to my delegation and to my Government, particularly as some aspects of the subject on which provisional agreement was recorded last year were this year put into doubtful status by being made the object of unreasonably long debate, both in the plenary sessions of the Sub-Committee and in the meetings of its Working Party.

It is true that the report of the Legal Sub-Committee does reflect some slight advance towards a complete convention but, when this is viewed in the light of the urgency which the General Assembly underlined in paragraph 4 of resolution 2345 (XXII), the pace and extent of this advance is simply not satisfactory. In the opinion of my delegation, a far greater effort must be made on the next occasion.

It is not the intention of my delegation to comment here on each of the texts and principles which the Sub-Committee agreed should be embodied in the liability convention. However, I should like to refer to some of them. Canada was particularly pleased with the new agreed text covering compensation on the basis of fault for damage caused to the space object of one State by the space object of another. We welcomed also the texts on the joint and separate liability of States engaged in common space ventures or involved in common catastrophes regarding damage caused to terrestrial third parties; on exoneration from absolute liability in cases of gross negligence by claimants, provided the space activities causing damage were in conformity with international law, the United Nations Charter and the Outer Space Treaty; on the presentation of claims and on the pursuit of available remedies. But we deeply regret that no agreement was obtained on such important issues as nuclear damage,

(Mr. Gottlieb, Canada)

limitation of liability in amount, provision for the compulsory third-party settlement of disputes, relationship between international organizations and the convention, the law applicable to the measure of damages and various aspects of joint liability.

My delegation agrees with the position that it would not be conceivable that nuclear damage should be excluded in a victim-oriented convention covering liability for personal injury and damage to property. We also agree with the comment made earlier during the discussions in this Committee that it would be rather fantastic to have the law applicable to the quantum of compensation of the launching State itself, the State more likely than not to be responsible for the damage. We appreciated the suggested feasible compromise in the Indian revised draft of applying international law and taking account of the law of the claimant State, whenever the claimant and respondent are unable to agree on the application of any particular national law. We also thought the Indian suggestions on the settlement of disputes and on international organizations were useful attempts at constructive compromise and should have been given greater consideration. There were other genuine efforts at compromise, such as that on the establishment of a high ceiling of liability, of which, regretfully, the Sub-Committee failed to take advantage. It is our sincere hope that a more serious attempt will be made next time to bridge the gap on those remaining points. My delegation, therefore, fully endorses the Sub-Committee's recommendation that it be convened as soon as it seems to the main Committee that substantial progress can be made towards a rapprochement of views on these important elements.

The report of the Legal-Sub-Committee records an interesting recommendation concerning the definition and utilization of outer space, a subject placed, in part, before the Scientific and Technical Sub-Committee at its fifth session last year.

(Mr. Gottlieb, Canada)

This recommendation requests the United Nations specialized agencies and the International Atomic Energy Agency to examine and report on particular problems that have arisen or may arise from the use of space in the fields within their competence. It is my delegation's hope that the Committee on the Peaceful Uses of Outer Space will endorse this recommendation, as we consider that several agencies, particularly the International Telecommunication Union (ITU), will be able to provide the Legal Sub-Committee with much useful information like that found in the paper presented to the Legal Sub-Committee by the ITU regarding possible harmful interference of a space object with telecommunications. This paper is set out as Annex III to the Sub-Committee's report.

Canada has for some time supported the concept of registering objects launched into outer space for the exploration and use of outer space. We are pleased to note the new French draft convention on this subject, and would like to assure the representative of that country that we shall give it our most careful consideration.

I would now like to turn to the matter which was touched upon by my delegation at our meeting on 15 October, regarding the study called for under operative paragraph 13 of General Assembly resolution 2260 (XXII). My Swedish colleague, in his intervention yesterday, underlined the urgency with which his country views the completion of a comprehensive study within the United Nations of direct broadcasting from satellites, and Canada wishes to associate itself with his remarks.

Speaking earlier in our debate, my delegation questioned whether or not the Scientific and Technical Sub-Committee would be the most appropriate or the only appropriate body in which this subject could or should be studied initially.

The representative of Sweden has put forward a concrete proposal that a special working group should be established to study and to report to the Committee on the Peaceful Uses of Outer Space on the technical feasibility of communications by direct broadcasting satellites and the current and foreseeable developments in this field, as well as the implications of such developments.

Those of us who were present at this morning's informal meeting, which the Chairman so kindly called together, are aware that my delegation has been working closely with the Swedish Delegation on the proposal for a special working group to

(Mr. Gottlieb, Canada)

undertake this important task. Those present at this informal meeting will also be aware that the Chairman called the attention of the gathering to the positive consensus which seemed to be reached on the setting up of such a group.

As my delegation considers the matter, the mandate of this working group should, as appropriate, consider and report on all aspects of the problem with which direct broadcasting from satellites would confront us, including political, social, cultural, legal and other questions. We agree that the first task of the working group, at an early meeting, would be to formulate a work programme setting out the fields of study and a tentative time-table.

Naturally, as in the past when other working groups were established, we could conceive that membership of the group would be open to all interested members of the Committee, represented, in so far as is possible, by specialists and by representatives, whenever necessary, from the competent specialized agencies of the United Nations.

We are hopeful that once the working group is established all interested States, as well as the specialized agencies, will contribute comments, or even working papers, to the special group for its information and guidance in the performance of its task. Canada, for its part, has commenced work on a working paper, to be ready by the end of this year, dealing with the technical aspects of direct satellite broadcasting. In addition, the Secretary-General may already have information on this subject available to him, which would also most certainly be of assistance to the working group. We would hope that once the necessary information is gathered together for the consideration of the working group, it could report to the Committee on the Peaceful Uses of Outer Space at its next session, and meanwhile, if their respective time-tables permit, to the Scientific and Technical and Legal Sub-Committees as well, so that we could have their expert views also before us at the next session of our Committee.

Mr. WILLIAMS (Sierra Leone): Mr. Chairman, it is a great honour to us in this Committee that you have found time from your busy duties as Foreign Minister of your great country, Austria, to preside over this current series of our meetings. Your presence here heartens us, and reminds us of the keen and unyielding interest you have taken in the peaceful uses of outer space.

(Mr. Gottlieb, Canada)

You presided over the long preparations for the Conference on the Exploration and Peaceful Uses of Outer Space, and the agenda was arrived at under your guidance. Though Sierra Leone was not physically represented in Vienna, we submitted a paper and we can assure you that we were very much present in spirit. We wish to thank the Austrian Government for inviting the United Nations to hold the Conference there, and we are glad that the Austrian Government was such a wonderful host. That Conference, which was also presided over by you, Sir, has been acclaimed a success by any standard by all the delegations that have spoken so far. It is natural that you should continue your efforts to effect a follow-up of that Conference and to see how we can surmount the difficulties that face our Legal Sub-Committee.

Sierra Leone also congratulates the Union of Soviet Socialist Republics for successfully sending a spacecraft around the moon and recovering it in the Indian Ocean.

We must also congratulate the United States, whose three spacemen are at this moment orbiting the earth in their vehicle.

Both achievements take man a little closer to the moon and other planets. But these achievements, which are great in themselves, make it all the more urgent for this Committee and the nations to take positive steps on the two items that are on our agenda.

We welcome the knowledge, which was given to us this morning by the representative of the United States, that eighty-nine countries have signed 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 that thirty-one countries have ratified it and seven have acceded to it. It shows the importance that States attach to that Treaty and the urgency which they believe is necessary for effective action.

Many delegations, then, and my own among them, hoped that during the twenty-third session of the General Assembly an agreement on liability for damage caused by the launching of objects into outer space would be elaborated, and one on assistance to and return of astronauts and space vehicles would be ready. There has, however, been no agreement on a number of points. Members of our Committee and our Sub-Committees have in the past shown remarkable resilience in arriving at solutions acceptable to all. Our delegation is confident that our past tradition in this Committee will not now be broken, and that the Legal Sub-Committee will proceed as soon as possible to agree on a text for liability, to which we attach very great importance.

(Mr. Williams, Sierra Leone)

For Sierra Leone -- and I believe many of the developing countries -- the Conference on the Exploration and Peaceful Uses of Outer Space was of particular and great significance. As many delegations have expressed here, it has generated greater interest in what can be gained from the methods and the techniques of probing outer space; of the uses that can be made of the vast knowledge by all of us. It also brought out what we in this Committee have always felt: there can be, and there is, a great spirit of co-operation amongst nations. We should, I believe, in making our report to the General Assembly, emphasize this point; and we in this Committee should proceed to increase the active participation of developing countries in the benefits to be derived from the exploration and peaceful uses of outer space.

At this point I wish to thank all those delegations which, both in Vienna and here in this Committee, have spoken so well of the paper produced by Sierra Leone. I, in turn, would like to pay a tribute -- with the Committee's indulgence -- to Dr. Rettie of the Canadian delegation who, as Chairman of Thematic Session VIII of that Conference, drew attention to the highlights of our paper since we were not physically present.

My delegation does not have to emphasize here the importance we attach to the developing countries deriving, in this spirit of co-operation, benefits of space research and exploration. We have been of the opinion that a wider dissemination of the possible benefits would help developing countries. The Indian proposal on this matter is therefore opportune.

As if doing the Sierra Leone delegation's work for it, the representative of the United States, I think, succinctly summed up what we intended at that Conference and what we would like to put forward here as a proposal. He said:

"... the representative of Sierra Leone made very clear that he did not believe the United Nations should duplicate existing channels of information for the exchange of general scientific and technical information relating to outer space. Instead, he proposed that the United Nations create a specialized mechanism to inform and advise nations in a highly focused way of space advances which might have

(Mr. Williams, Sierra Leone)

practical application for their benefit. Doubtless, such a mechanism might take various forms, but experience argues that a successful United Nations service must employ the best technical expertise available.

"Rather than a politically structured advisory body, the developing countries appear to desire disinterested and competent advice which grows out of experience in open and proven programmes; advice which will command respect and use by virtue of its demonstrated quality. This is an opportunity for our Committee to move with both wisdom and vision and we look forward to hearing from other delegations on this important matter." (54th meeting, p. 16)

I, too, look forward to hearing from other delegations on this proposal. I would also add that my delegation would also wish that the Committee would take this matter up urgently and consider ways and means of allowing developing countries to participate much more effectively.

Finally, like other delegations we will study the variety of proposals that have been put before us. But in doing so, and when the Committee takes up their consideration, we hope very much that no obstacles would be placed in the path of development and gain by developing countries from the exploration and peaceful uses of outer space because of parochial interests of one country or another.

Mr. BLAGONRAVOV (Union of Soviet Socialist Republics) (interpretation from Russian): I did not intend to weary representatives after my statement of yesterday. But I am compelled to do so because of the statement made this morning by the United States representative in which the blame for the lack of any positive solution on the draft treaty on liability for damage by the Legal Sub-Committee was ascribed entirely to the Soviet Union. We, too, could have made accusations against certain other delegations and could have criticized them for a lack of adequate flexibility in the search for solution to some of the complex questions connected with the elaboration of the problem of liability for any possible damage that might be caused as a result of the expanding use of outer space. But we do not wish to embark upon such a course.

(Mr. Blagonravov, USSR)

We do not wish to do so precisely because we do not wish to divert the attention of members of the Committee towards a fruitless and groundless polemic and away from a businesslike discussion of the questions at hand.

I am again obliged to repeat that we are sincerely interested in the speedy elaboration of an international agreement of the kind that I have mentioned inasmuch as we feel that the existence of a clear-cut legal foundation for human activities in outer space is an essential prerequisite for the fruitfulness of such activities and for the development of international co-operation in it.

Again, I am bound to repeat that the Soviet Union is prepared to seek any ways for the attainment of this goal, provided these methods and course of action are in accord with the principles of the Treaty on the peaceful uses of outer space inasmuch as this is, in our opinion, a natural essential. And, if the Committee is to adopt a decision concerning entrusting the Legal Sub-Committee in the very near future with the task of solving this problem, we assure you that we will make every effort to contribute to the achievement of that purpose.

The CHAIRMAN: Since I have no other speakers on my list for this afternoon, I now give the floor to the representative of UNESCO.

Mr. VARCHAVER (United Nations Educational, Scientific and Cultural Organization): Mr. Chairman, I should like first of all to take this opportunity to associate UNESCO with the wishes expressed to you of gratitude for your Chairmanship here, and for your hosting of the Vienna Conference, which not only afforded an occasion for scientists to put forward their views, but also helped to focus world attention on some of the most important issues which society faces as a result of satellites, and the revolution they portend in the educational and cultural area.

UNESCO's General Conference is meeting at this very moment in Paris. One of the important priorities outlined in UNESCO's Draft Programme and Budget for 1969-70 is the study of the implications of technological advances in communication, including space communication and the role of modern means of communication in education, science, and culture and for the free flow of information and ideas.

One of UNESCO's scientific programmes which will rely increasingly on space technology is the International Hydrological Decade, under which a network of over seventy national committees is carrying out a study of the world water balance, or rather the world water budget, for no proof exists that there is a balance. Nevertheless, the global hydrological system is, indeed, a single physical system. The scientific principles which can elucidate the incidence and spread of drought in Australia apply with equal validity to cause and effect relations between droughts on the Indian sub-continent, in Africa and in North America. The study of the world water budget is of over-riding importance, as we face a critical shortage of fresh water in many areas of the globe, and as industrialization increases, the demand for water increases in even greater proportion. And still today more than 90 per cent of the world's people have less than a minimum standard of piped potable water delivered to the household. The implications of global satellite systems which can sense elements of the global hydrological cycle are obvious. It is significant that the hydrological community is beginning systematic studies related to space applications for hydrological and water resources purposes. Further, some of the instrumentation previously carried by aircraft for such functions as colour photographs, infra red imagery, and spectroscopy are already being converted to satellite use. UNESCO will work, as it has in the past, with the WMO in collecting relevant data for this programme.

(Mr. Varchaver, UNESCO)

In addition, UNESCO, in co-operation with the Inter-Union Commission on Solar-Terrestrial Physics, a body of the International Council of Scientific Unions, will study the problems involved in the organization of regular observations of solar activity and the geophysical effects of this activity. This is a logical continuation of the studies, carried on under the aegis of UNESCO, of the "Years of the Quiet Sun", observations of solar phenomena at a point when the solar flares and sunspot activities were at a minimum. This programme, in 1964 and 1965, depended heavily on rockets and on satellite observations.

It should be emphasized, however, that even as the scientific side of UNESCO's programme is enhanced by the development of satellites, it is nevertheless in the educational and cultural field that UNESCO foresees the greatest impact on mankind. As a case in point in this connexion, may I cite India, a country which is well advanced in the area of space technology.

On the basis of a request from the Government of India, a UNESCO expert mission, including a representative of ITU, was sent to that country in November-December 1967 to examine the technical requirements, the cost factor, and the educational programming aspects of a possible space communication project. The plan presented by the mission in co-operation with a team of Indian experts would involve the launching of a satellite in 1972 for broadcasting to 50,000 television receivers. A longer term target would foresee 10,000,000 receivers with at least one television set in each Indian village. The extensive use of television made possible by satellite communication could help alleviate many urgent problems such as illiteracy, unprecedented population growth and the need to increase agricultural output. The initial cost of the programme is estimated at \$50 million, of which \$10 million would be required for the satellite itself and another \$10 million for the provision of 50,000 receivers.

Great importance is attached to adequate staff training, concerning both production and technical personnel for television. Special attention should also be paid to the need for training specialists in programming for agricultural education, family planning and community development. The desirability of involving the United Nations and the other specialized agencies in these efforts is, of course, recognized here.

(Mr. Varchaver, UNESCO)

In May of this year, a similar expert mission was sent to Brazil at the request of that Government to study a similar application of satellite communication for educational television.

At its meeting in May of this year, the Executive Board of UNESCO noted with satisfaction that the Government of India is exploring the possibility of implementing the project mentioned before, and recognized that it will require "extensive exploration and preparatory work, including study, research, and a broad training programme". The Director-General of UNESCO was authorized on the request of the Government of India, and within the framework of UNESCO's own programme and budget, to continue to lend assistance to studies on the use of satellite communication. This project will be discussed at the General Conference now taking place, and UNESCO looks forward to continuing co-operation in this field, particularly as regards its so-called "software" aspects.

That space technology offers exciting and far-reaching benefits in the area of education, teacher training and instant global information is evident; as is also that all uses of satellite communication require international co-operation, best reflected in international arrangements.

As you can see, UNESCO is deeply committed to the shaping of space communication to serve the ends for which the organization was created, namely, to promote peace and human rights through education, science and culture. In the measure that this Committee will set up a machinery to explore the means of achieving these ends, UNESCO is happy to associate itself with the other specialized agencies in offering its co-operation and its experience gathered through the studies carried out to date.

The meeting rose at 4.35 p.m.

VERBATIM RECORD OF THE FIFTY-NINTH MEETING
Held on Friday, 18 October 1968, at 3 p.m.

Chairman:

Mr. WALDHEIM

(Austria)

REPORT OF THE COMMITTEE TO THE GENERAL ASSEMBLY ON THE PREPARATIONS FOR THE ORGANIZATION AND PROCEEDINGS OF THE UNITED NATIONS CONFERENCE ON THE EXPLORATION AND PEACEFUL USES OF OUTER SPACE (GENERAL ASSEMBLY RESOLUTIONS 2221 (XXI) AND 2250 (S-V)): DOCUMENTATION ON THE UNITED NATIONS CONFERENCE ON THE EXPLORATION AND PEACEFUL USES OF OUTER SPACE (A/AC.105/L.44) (continued)

REPORT OF THE COMMITTEE TO THE GENERAL ASSEMBLY (GENERAL ASSEMBLY RESOLUTION 2260 (XXII)): REPORT OF THE LEGAL SUB-COMMITTEE (A/AC.105/45) (continued)

Mr. de CARVALHO-SILOS (Brazil), Rapporteur: I have pleasure in introducing the draft report of the Committee, copies of which have been distributed to delegations and which has been discussed in our informal working meetings.

I have one correction to which I should draw attention. The first sentence in the third paragraph of the section entitled "International Sounding Rocket Facilities" should read as follows:

"The Committee recommends that when the Government of Argentina has notified the United Nations that the Mar Chiquita station, near Mar del Plata, is under the most appropriate operating conditions, the Secretary-General..."

It goes on as in the present draft. This modification is made in order to make our text conform with the Spanish and the Russian text.

We have before us two proposals: one by the delegation of Sierra Leone and the other by the delegation of the United Arab Republic. As there was no agreement about those two proposals, it is up to the Committee to decide on their inclusion in our report.

The CHAIRMAN: I thank the Rapporteur for his report. May I ask the delegations whether they want to make comments on the report? May I take it that the draft, as it stands now, is acceptable to the delegations?

Mr. SKALA (Sweden): I am sorry to interrupt once again on this topic of direct broadcast satellites. I think there is just a small typographical error on page 8, the third line. I think the first word should be "user costs" and not "usage costs". I am just asking that it be corrected, if I am right.

The CHAIRMAN: The Rapporteur will take note of this correction. Are there any further comments?

Mr. G. WILLIAMS (Sierra Leone): Concerning the proposal of Sierra Leone, I do believe that there is general agreement about the proposal now, and that it should be placed as "20 (a)", that is, the paragraphs may have to be renumbered later. But I think it comes immediately after the proposal of India, which is paragraph 20, so that probably can be 21, and then the other paragraphs can be renumbered. I think there is a general agreement on it in principle.

The CHAIRMAN: Is there any objection against including the proposal of Sierra Leone in the report? The proposal has been circulated in the meantime.

It was so decided.

The CHAIRMAN: We have another proposal put forward by the United Arab Republic delegation. Would the representative of the United Arab Republic like to introduce the amendment?

Mr. ABDEL-HAMID (United Arab Republic): This is an amendment, I believe, of a factual nature and I hope that it will not raise any difficulties for anyone in the Committee. I should like to read it for the record:

"Many delegations made reference to operative paragraph 11 of General Assembly resolution 2260 (XXII), and the Committee renewed its request to the Scientific and Technical Sub-Committee to take up at its forthcoming session in 1969 the serious consideration of the suggestions and views regarding education and training in the field of exploration and peaceful uses of outer space expressed in the General Assembly and in the Committee."

This is just a new insertion of a factual nature. I am confident that it will not cause any difficulty.

The CHAIRMAN: Is there any objection?

Mr. FIORIO (Italy): I have no objection. I would suggest that this addition could be put in paragraph 18 where, under the future work of the Scientific and Technical Sub-Committee, we are already stressing the exchange of information. Perhaps the United Arab Republic proposal could be inserted at the end of paragraph 18.

I also have an observation on paragraph 19. I should like to change the word "assist" to the word "stimulate", as I said this morning. In paragraph 19, instead of "the Conference will assist", it should read "... stimulate the Sub-Committee in dealing with the questions".

So that I will not intervene any more, my third observation is with respect to paragraph 27, where it is stated that:

"The reports of the Working Group shall also be submitted to the Scientific and Technical Sub-Committee and the Legal Sub-Committee for consideration at their meetings, if their respective time-tables permit."

I should like to comment on the fact that we hope the Chairman will establish schedules for those Committees and make every possible effort to allow the two Sub-Committees to examine the report of the Working Group. Because, otherwise, it seems to me these two Sub-Committees will be completely cut off from a matter on which they have a mandate. Without putting any mandatory provision, I hope that the Chairman will establish such a schedule as to make this provision possible.

The CHAIRMAN: The Chairman is certainly ready to make such provisions with regard to paragraph 2. With regard to paragraph 19 I ask the Committee whether it agrees to change the word "assist" to "stimulate"?

Mr. CARVALHO SILOS (Brazil), Rapporteur: Concerning the insertion of the United Arab Republic proposal, I think it should come after paragraph 19, because both paragraphs 18 and 19 deal with the Conference -- and now we are talking about the meeting of our Committee.

The CHAIRMAN: Since there are no objections to the replacement of the word "assist" by the word "stimulate", it will be so decided.

It was so decided.

The CHAIRMAN: I also assume that we agree to insert the United Arab Republic proposal after paragraph 19.

It was so decided.

Mr. DELEAU (France) (interpretation from French): As regards paragraph 27, I should just like to say that my delegation endorses to the greatest extent possible the comments made a few moments ago by the representative of Italy concerning the desirability of sending the report of the Working Group on direct broadcast satellites to the Sub-Committee. We would express the hope that the work could be so arranged that a general discussion could be held within the framework of work on the peaceful uses of outer space, which is already under study here in the various Committees. This goes back, in fact, to what I said this morning about this method which seems to me preferable -- again, of course, to the extent that it will not delay the work of this group.

Mr. BLAGONRAVOV (Union of Soviet Socialist Republics) (interpretation from Russian): I should like to make a comment on the draft report before us. I think it would be desirable to set a date for the calling of the Scientific and Technical Sub-Committee. There is no such reference in the draft at the moment. We are giving a list of instructions to the Scientific and Technical Sub-Committee. We are entrusting various tasks to them. We think that the

(Mr. Blagonravov, USSR)

decisions on these matters do not brook delay. We would therefore like to see a reference to the fact that the convening of the Scientific and Technical Sub-Committee should take place in 1969 at the latest.

The CHAIRMAN: I thank the representative of the Soviet Union. I remember that he already made a suggestion this morning in our informal meeting to set a date for the meeting of the Scientific and Technical Sub-Committee. I am sure the representative of the Soviet Union will understand that we cannot fix an exact date. This is very complicated. We have not done it in the past because it has to be co-ordinated with meetings of our Committees. But I think that we could agree on holding the meeting in the first half of next year. I think it should then be left to the Chairman and the Bureau to work out an exact date for the meeting of the Scientific and Technical Sub-Committee. Does this meet the wishes of the Soviet delegation?

Mr. BLAGONRAVOV (Union of Soviet Socialist Republics) (interpretation from Russian): Completely, Sir. I just thought there ought to be a reference saying "1969" -- nothing more specific than that.

The CHAIRMAN: I think we all agree that such a reference should be made in the report that the meeting of the Scientific and Technical Sub-Committee should be held in 1969.

It was so decided.

Mr. DARWIN (United Kingdom): I wish to speak very briefly the same point. In our report, as it is, we hope, about to be adopted, we have from time to time spoken of meetings, the arrangement of meetings and their scheduling, as you yourself have said, is a complicated matter. In particular, we have certain legal commitments, by which I mean commitments to the meeting of the legal organs, in the early part of next year, and some accommodation may have to be made to take account of that. While I favour the inclusion of the word "early" in connexion with the reference to the Legal Sub-Committee in paragraph 22, but obviously this, as the scheduling of other meetings in that field, will have to be arranged taking into account other commitments. My delegation is strongly in

(Mr. Darwin, United Kingdom)

favour of rapid progress on the liability convention; but it would be wrong to fail to take account of other commitments to which the relevant experts may already be made available.

Mr. FRUTKIN (United States of America): I should like to make some very brief comments. I hope that the Chairman will take into account, in considering the venue of the Scientific and Technical Sub-Committee, that same concern for economy which has characterized a number of remarks on other subjects in our meetings here.

Secondly, in paragraph 33 we are advised informally by the representative of COSPAR that COSPAR should be added to the list of agencies as having participated in the United Nations Conference and contributed to it.

Thirdly, I simply want to say that my delegation's concurrence in paragraph 11 and the material beginning with paragraph 23 on direct broadcasts, is predicated in the first case on our understanding that document A/AC.105/L.44 will carry on its cover the language discussed this morning, and in the second case, on the understanding that various delegations will participate constructively in the work of the study group, as they stated in our informal meeting the other day.

The CHAIRMAN: We shall take note of the remarks of the United States representative. Is there any objection against mentioning COSPAR in paragraph 33, as suggested by the representative of the United States?

It was so decided.

Mr. EVANS (Australia): I should just like to add a brief word, following the remarks made by the representatives of Italy, France and the United Kingdom, that it would be the expectation of the delegation of Australia, and taking into account your own assurances on this, Mr. Chairman, that the meetings next year of the Working Group and the Sub-Committees of the Committee would be so scheduled that the spirit of the comment in paragraph 27 would be enabled to be put into practice; namely, that those two Sub-Committees would have an opportunity of contributing in the broad to the work which this Committee will do on the subject of broadcast satellites next year.

In this connexion, I would agree with the representative of the United Kingdom that, of course, the Conference Services officers have a lot of competing plans with conferences next year and it would perhaps be a little premature for us to suggest exactly at what point in the year these meetings might take place. In this respect, the suggestion by the representative of the Soviet Union seems to my delegation a perfectly acceptable one.

The CHAIRMAN: The suggestions made by the delegation of Italy and other delegations, and supported now by the delegation of Australia, will certainly be taken into consideration.

Mr. GOTLIEB (Canada): In our statement during the 54th meeting of this Committee and in our informal meeting this morning, reference was made by my delegation to the valuable pamphlet entitled "Space Science and Technology: Benefits to Developing Countries". This pamphlet was attributed to the Office of Public Information, as stated in the pamphlet. It is my wish to make clear that my delegation is fully aware that the material in the pamphlet was prepared by the Outer Space Affairs Group of the Secretariat and we wish to congratulate the Secretariat on the excellence of the material contained in this pamphlet.

Mr. ARORA (India): Mr. Chairman, I must first ask your permission to make some comments on the report as a whole. I am wondering whether I should make these comments now or later on, should the report be adopted. Perhaps I could do it now.

But, first of all, I think that we owe it to the Rapporteur, who has put in hard work, to thank him for his efficient and able work in producing the report so quickly and so well. The report has summarized the views and the recommendations made by various delegations, and it seems that it has been done so well, in consultation with all delegations, that it is acceptable to all delegations. We would like to offer a few comments with respect to certain paragraphs of the report.

Paragraph 11 refers to document A/AC.105/L.44. We are glad to note that there will be an annex to this report of the Committee, as we consider that the Secretariat has done extremely useful work in producing this document and we feel that their labour should not be lost. Now that this document will be part of the report and will be recommended to the General Assembly, it will serve a very useful purpose. We are confident that the report will interest many Governments which either have not yet fully analysed the results of the Conference or which were not in a position to participate in the Conference.

We would like then to refer to paragraphs 16 and 17 of the draft report. In my delegation's statement at the 53rd meeting, we suggested that adequate publicity should be given to the achievements of the Conference held in Vienna. Paragraphs 16 and 17 reflect the views which the various members expressed regarding this matter. Paragraph 17 states:

"The Committee also recommends, for the purpose of large-scale popularization of the results of the Conference, to publish and disseminate the materials relating to the Conference through the media of the United Nations in the form of a concentrated presentation of the basic questions that have been raised and discussed at the Conference."

Our understanding is that the words used "the media of the United Nations", would include audio-visual presentation of the achievements of the Conference.

(Mr. Arora, India)

Paragraph 20 reflects the proposals made by my delegation at the 53rd meeting. We were encouraged to see a positive response to these proposals. We hope that the Scientific and Technical Sub-Committee will be able to consider our proposals as a matter of urgency, as they concern the vast majority of the developing countries which have a great interest in some arrangements being made to draw upon the practical uses of outer space and the research which is being conducted by space Powers. Therefore, while we have not, because of lack of time, insisted on a detailed examination of these proposals in the Committee, we do hope that the proposals will be considered as a matter of urgency by the Scientific and Technical Sub-Committee.

We did not address ourselves, in our statement made at the 53rd meeting, to the idea of a working group on direct broadcasting satellites. We would now like to state that we fully support the initiative taken by the delegations of Sweden and Canada, and we are glad to note that the Committee is making a recommendation regarding the setting up of a working group on direct broadcasting satellites. My country is interested in this project. It is of importance to us and we would like to make a contribution to the working group when such a working group is set up.

The CHAIRMAN: As there are no further comments, may I take it that the Committee agrees to the draft report before us?

I see no objection. The draft report is therefore adopted by the Committee.

Mr. DELEAU (France) (interpretation from French): Mr. Chairman, my delegation would like to point out that this morning and this afternoon we had to work on a document that was presented to us only in one working language. My delegation did not wish to raise this question in the course of the discussion so as not to hold up our work, and particularly because we know, Mr. Chairman, that the important business awaiting you in your country does not make it possible for you to remain among us any longer. All the same I should like to point out the importance for our Committee of being able to work with a report in all the working languages of the Organization.

The CHAIRMAN (interpretation from French): The Secretariat will certainly do everything in its power to make available a French text, but I do appreciate the understanding of the representative of France of my position, which makes it possible for me to close the session this afternoon.

(continued in English)

I would ask the Secretary of the Committee to take note of the remarks made by the representative of France and to provide, as quickly as possible, a French text of the report.

Mr. HAYMERLE (Austria): With regard to paragraph 15 of the draft report before us, I wish to thank the delegation of Hungary and the other delegations which have proposed to insert this paragraph into our report. The Austrian delegation highly appreciates the fact that reference is made in the report to the services which the Austrian Government could render to the Conference by acting as host country.

The CHAIRMAN: There appear to be no further comments.

Distinguished representatives, I thank you for your co-operation. My special thanks go to the Rapporteur and to the Secretariat headed by Mr. Abdel-Ghani. My thanks also go to those delegations which have so actively co-operated during the morning period and during the lunch hour in order to present the draft report, so as to enable us to adopt a unanimous report to the General Assembly.

(The Chairman)

With the adoption of the report, the work of this session of the Committee is concluded. It is gratifying to note that once again, as in the past, we have been able to reach common agreement on the course of action we should take. The report we are submitting to the General Assembly, which covers the Vienna Conference, as well as the work of the Committee, will also reflect the valuable and interesting suggestions that various delegations have made in the course of the present session, so that in this respect, too, the Assembly will receive a substantial presentation of all aspects of the questions involved. I think we are right in saying that this has once again proved to be an extremely useful opportunity to state our views, to discuss them in a spirit of understanding and co-operation, and to arrive at a common denominator as a result of our deliberations.

I wish to thank all representatives for the spirit of co-operation they have demonstrated and for the assistance they have given me in conducting our work. I also wish to acknowledge the contribution of the representatives of the specialized agencies. I am indebted to the Vice-Chairman, Ambassador Diaconescu, on whom I had to call several times to take the Chair. A special word of thanks goes to the Under-Secretary-General, Mr. Kutakov, who was with us during the session; to the Deputy Under-Secretary, Mr. Velldi; to the Secretary of the Committee on the Peaceful Uses of Outer Space, Mr. Abdel-Ghani, and to our Rapporteur, Mr. Silos. I already had an opportunity to thank him for his efforts during the luncheon hour and before. My thanks also go to all the visible and invisible staff of the United Nations who have worked with us during this session.

In recent years we have been witnesses to a breathtaking development in the exploration of outer space. From its beginning, this Committee has assigned itself the task to do everything in its power to make its contribution so as to use outer space exclusively for peaceful goals and to derive from this peaceful use benefits for every individual country and thus for the world as a whole.

(The Chairman)

With this basic concept in mind, our Committee has followed up -- and I think successfully -- the rapid technical evolution in outer space research. I have thought it appropriate to make this brief review of the goals we have set ourselves and of our activities, as this is the last session of the Committee over which I shall have the honour to preside.

I regret that my new responsibilities will not permit me to continue to act as Chairman of this important body. I do wish to stress that it has been a great privilege and honour for me and my country to have been elected to this assignment. The atmosphere in which this Committee's work has been conducted all through this period, and the results achieved, represent a personal experience to me which I shall always remember with great satisfaction. In view of these links with the Committee and indeed with outer space matters in general, I cannot help but follow with interest the future work done in this field.

I should like to conclude by expressing once more to all of you my sincere appreciation for the assistance and understanding that you have always extended to me whenever we had our meetings in this building, and by wishing you every success in the future.

Mr. BLAGONRAVOV (Union of Soviet Socialist Republics) (interpretation from Russian): Mr. Chairman, as the representative of France has already indicated, you are giving up the Chairmanship of our Committee, and on this occasion I should like to tell you how much we regret this decision. We have taken part in the work of the Committee from the very outset, and throughout the time you have been in charge of the Committee, I am deeply convinced that the positive decisions which have been taken by the Committee were taken exclusively thanks to your wise guidance and your ability to get us out of difficult situations which sometimes put the representatives of individual countries in difficult positions, not excluding myself of course. These difficulties were overcome by you, Sir, with extraordinary skill.

(Mr. Blagonravov, USSR)

Of course I understand that in your present situation, when you are burdened with very important public responsibilities in connexion with your own country it is very difficult for you to participate in the work of our Committee and to continue to be here, and in expressing my regret I thank you for your attention. I should just like to add that our Committee should express deep satisfaction at the work of the Chairman and wish him all success in his future fruitful activity. We express to him deep gratitude at the successful outcome of the Committee's work, for which he was so largely responsible.

The CHAIRMAN: I thank the representative of the Soviet Union for his kind words.

Mr. SCHUURMANS (Belgium) (interpretation from French): I should like to begin by saying, particularly after hearing the statements made since I arrived at this meeting, how honoured my delegation is that the Minister of Foreign Affairs of Austria should be presiding over this meeting --- perhaps for the last time. May I take this opportunity of congratulating you, Sir, on the success achieved by the Conference on the Exploration and Peaceful Uses of Outer Space, which was held in the capital city of your country in the last two weeks of August this year.

I should like in my turn to associate myself with the congratulations which you, Mr. Chairman, have addressed to the space Powers on the many and remarkable exploits they have recently achieved in the field of the exploration and use of outer space. The mission assigned to Gond 5 has been satisfactorily concluded, and we all share the hope which you have expressed on our behalf for the success of the Apollo 7 flight, which is still in progress and which everything leads us to expect will have a satisfactory conclusion.

(Mr. Schuurmans, Belgium)

The documentation concerning the Vienna Conference (A/AC.105/L.44) was the subject of item 2 of the agenda, which we have just adopted unanimously. It was prepared as always, with great care by the Secretariat, and will constitute a very useful basis for the drafting of the report which our Committee is to make to the General Assembly on the preparation for and the organization and work of the Conference. The explanations provided on this subject by the Secretary of the Committee have been very useful and have helped to clarify certain points. However, it would seem to me to be necessary to make a preliminary comment. The document I have just referred to is dated 20 September 1968. In fact the original version -- that is to say, the English version -- of the document reached me only at the end of last week while the French version was handed to me only a few hours before the opening of the session. Since the document contains some 100 single-spaced pages, not counting the annexes, I must say in all sincerity that I have only been able to read it very briefly. I leave it to those responsible to decide whether that situation is fair or whether in future the work of delegations which speak French should not be facilitated. I might say that French ought to be treated on an equal footing with English, because the two languages are equally working languages of the Organization. In this connexion I would refer to General Assembly resolution 2292 (XXII), paragraph 4, which requests the Secretary-General:

"...to take all measures to ensure a more effective presentation and communication of the documents in due time and simultaneously in the working languages, as envisaged in the different regulations of the organs of the United Nations;"

The brilliant statement which you, Mr. Chairman, delivered at the opening of the Vienna Conference on 14 August 1968 is still fresh in our minds, and I remember the sentence which so well summed up the hopes that all countries placed in the development of space research and space technology, for the realization of which the Conference was called upon to find certain concrete means and possibilities for the future.

(Mr. Schuurmans, Belgium)

This is what you said:

"The first decade in the exploration and use of outer space has been marked by outstanding scientific and technological achievements."

(A/AC.105/L.44, page 15)

It is not unreasonable to suppose that in the second decade greater attention will be paid to the practical applications which will be of direct advantage for all countries of the world and will help to solve their economic and social problems and to bridge the gap between the industrialized and the developing countries. In this regard the outlook would seem to be very promising. To put the extraordinary discoveries in the field of the science and technology of space at the service of mankind -- that is the spirit in which the Vienna Conference was conceived and organized.

The objectives of the Conference were:

"...to examine the practical benefits of space programmes on the basis of scientific and technical achievements, and the opportunities available to non-space Powers for international co-operation in space activities, with special reference to the needs of the developing countries;" (General Assembly resolution 2221 (XXI), para.3)

Did the Conference vindicate the hopes placed in it? The two questions raised in the closing statement by the Scientific Chairman of the Conference, Dr. Sarabhai, which statement was so rich in suggestions, should enable those who did not have the privilege of taking part in the Vienna Conference to appreciate the benefits for the participants which resulted from those proceedings. I refer to the question, "Is space research permissible?", a question which was often raised in the Conference, and the second question, "Is it permissible not to take advantage of the applications of space research?", which was on the lips of all delegates as they left the capital of Austria.

(Mr. Schuurmans, Belgium)

On that occasion Dr. Sarabhai made a number of very attractive suggestions which the representative of India quoted in an eloquent statement two days ago. On reading the statement of the Scientific Chairman of the Conference I got the impression that he hoped that those various ideas would be considered first of all by the Scientific and Technical Sub-Committee of our Committee. He said, in substance, that he hoped the Sub-Committee would be able to consider the reports of the Conference in detail, in all aspects, and put forward specific proposals which the Conference on the Exploration and Peaceful Uses of Outer Space and the General Assembly would be in a position to adopt. My delegation shares that hope and would like here and now to assure the Indian delegation that the Belgian Government will not fail to give very favourable consideration to the suggestions which it has just made.

At the beginning of this statement I recalled General Assembly resolution 2292 (XXII). I am not unaware of the insistence in the resolution on the spirit of strict economy by which we should be guided in the reproduction of documents. Since it is provided that the records of the Conference will include the memoranda put forward in the technical meetings and the evening lectures in the original language, summaries of those memoranda in the other working languages, summary records of the debates and discussions in the groups and the introductory and explanatory texts, it would perhaps be too much to ask that the whole of document A/AC.105/L.44 should be published as an annex to the report of our Committee. On the other hand I would venture to propose that the preliminary note on the background of the organization of the Conference should serve as a basis for the report which the Committee is to submit to the General Assembly. I would further suggest that there should be annexed to the report the note of the Secretary-General, the texts of the statements made at the opening and closing meetings by the President and Vice-President of the Conference and also the reports on the introductory meeting and the technical meetings of the Conference, which were submitted by the respective Chairmen. Such a document would not run to much more than thirty pages, and in the view of my delegation would be very useful and would meet the concern of our Committee to inform the General Assembly, as correctly and comprehensively as possible, of the achievements of the Conference, as well as the concern of the General Assembly that this material should be given all desirable publicity.

In conclusion I should like to say a few words about the report of the Legal Sub-Committee on the proceedings of its seventh session. In this regard my delegation would not wish to conceal its disappointment and even certain misgivings at the way in which the results are reported. The essential task which was referred to the Sub-Committee in the course of this session was to prepare a system of conventional standards designed to govern the reparations for damages resulting from space accidents, and in effect that was what General Assembly resolution 2345 (XXII) required the Committee to undertake and to complete, indeed, without delay, when it welcomed the Agreement on the Rescue of Astronauts, the Return of Astronauts, and the Return of Objects Launched Into Outer Space which has been signed by a very large number of Members of the Organization.

My delegation is one of those which from the outset have urged the early conclusion of a multilateral instrument which, in accordance with generally accepted norms, would govern questions arising from liability for damage caused as a result of the launching of space objects. We have repeated here, as we have in other bodies, particularly in the First Committee, that it was both normal and proper, and equitable, to establish special conventional rules to facilitate the practical application of the principles of assistance already formulated in the Space Treaty; that it has not been possible to separate the field of liability from the humanitarian considerations and that the Treaty should be complemented by a precise, detailed formulation of the criteria and conditions to ensure just reparation for innocent victims of space accidents.

In reality it would have been desirable, in the view of my delegation, to have a certain parallelism, a certain synchronization, to be applied to the elaboration of these two subsidiary conventions. In a spirit of compromise, and as an earnest of its good will, the Belgian delegation has agreed that the agreement on assistance and return should be approved by the General Assembly and open for signature by States, whereas the convention on liability was only in the first stage of its drafting. We wished, on the one hand, to enforce an agreement the clearly humanitarian purpose of which was obvious. On the other hand, we were aware of the difficulties inevitably raised by the problem of liability. In regard to a multilateral treaty that implies harmonizing in one and the same instrument the positive law arising from various concepts,

often divergent ones. Furthermore, that is necessary when one is dealing with a field where, because of the nature of things, our experience is still limited and everything remains to be done. Given the prodigious development of the uses of space, the elaboration of these conventional rules remains an urgent necessity, none the less, in the view of most countries.

My delegation, which had the honour of being represented in the Legal Sub-Committee, spared no effort to hasten the conclusion of this agreement, which constitutes the second phase of the supplementary conventions to the Space Treaty. At one time we put forward a draft, which members of the Sub-Committee are aware of and which was the subject, along with similar drafts, of contacts and negotiations within the Sub-Committee. If we look at the report of the seventh session from that standpoint we must admit that it is, frankly, disappointing, because it points up the importance and the magnitude 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 space Powers, will relax their efforts or display less urgency in their attempts to complete negotiations on the conclusion of a second subsidiary agreement.

I shall not attempt to review all the points on which unity of view has emerged and the subjects on which disagreement remains. Other speakers in this debate have made detailed and admirable analyses of those matters, particularly the Ambassador of India in his remarkable statement last Tuesday. My delegation felt it was its duty to express with candour the bitterness we feel at the stagnation in the talks. However, we shall not abandon our relentless efforts, which we have been making for many months now. We continue to hope that these negotiations should make it possible before very long to arrive at results. Our conviction is that if what we often call in Europe "political will" animates all the partners, the technical difficulties, no matter how important they may be, can be overcome in the final analysis, thanks to a spirit of co-operation and compromise.

(Mr. Schuurmans, Belgium)

Our exhortation is addressed in the first instance to the space Powers, whose contribution will be crucial in this particular case, for it is upon them that the success of our enterprise will depend.

Mr. TELLO (Mexico) (interpretation from Spanish): On behalf of the Latin American countries in this Committee on the Peaceful Uses of Outer Space I express our cordial thanks to you, Mr. Chairman, for the brilliant way in which you have conducted the work of the Committee. In particular, the Committee has been able to prepare for presentation to the General Assembly the first international instrument regulating respectively the activities of States in the exploration and exploitation of outer space, already in force, and those which were approved by the General Assembly at its last session, in connexion with the return of and assistance to astronauts. With reference to these two treaties, the first Conference held by the United Nations to consider questions relating to space was also under your Chairmanship, Sir, and certainly this has been one of the most important activities of the Organization and is becoming more and more important all the time.

We are very sorry that you are about to leave us, Sir, and on behalf of the delegations of Argentina and Brazil, as well as my own, I wish you all success in your work as Minister for Foreign Affairs of Austria.

Mr. FRUTKIN (United States of America): Those of us who have been members of this delegation throughout the years of your Chairmanship, Sir, know very well the measure of your patience and of your contribution to the work of the Committee. We shall miss you. We salute you in your advance in the affairs of your nation. You take with you our very deep respect and our very warm affection.

Mr. ABDEL-HAMID (United Arab Republic): I have the privilege, Mr. Chairman, on behalf of the delegations of Morocco and Sierra Leone as well as of my own delegation, of expressing our congratulations to you on the way you have presided over the deliberations of this Committee. It is quite usual to see you display this skill and diplomatic efficiency, qualities which are always evident when you are in the Chair. These qualities of a great diplomat which are clear from your record in the United Nations will be an example for many of us. That record speaks for itself and does and your country great honour.

Although we regret the fact that we are to be deprived of your leadership, we understand your obligations towards your own country. We certainly wish you every success and are confident that you will always maintain your devotion to the objectives and purposes of the United Nations. Therefore, while we very much regret that you will no longer preside over this Committee, I am sure, as I said earlier, that your record will inspire many of us. If I may end on a personal note, I have had the great honour in the past of being closely associated with you in connexion with many problems and I assure you that I have learned a great deal from you.

Mr. DARWIN (United Kingdom): Mr. Chairman, we have all heard with great regret, though with full understanding, your personal statement that you are obliged to withdraw from the chairmanship of this Committee. On this occasion, on behalf of the delegation of the United Kingdom and also, at their request, on behalf of the Australian and Canadian delegations, I wish to express our most sincere regrets at this decision and our thanks for all you have done in the past. It is sad to think that your long service as Chairman of this Committee must now be ended. Your elevation to the post of Foreign Minister has shown the distinction of the Chairman of this Committee. We regret heartily that, as a result of that distinction, we are to lose the benefit of your wise guidance in future meetings. Although you have presided over other bodies within the United Nations, this was perhaps your most long-lasting chairmanship and the most fruitful as regards progress. Under your chairmanship this Committee has endorsed important conventions and has reviewed the outcome of the discussions on many topics in the Scientific and Technical Sub-Committee. Finally, it decided upon and developed the Vienna Conference, of which the success has been so marked and which has been so widely praised.

(Mr. Darwin, United Kingdom)

Throughout this time in this Committee and also in administering the affairs of its several subordinate bodies we have had your wise and skilful guidance. Your vast experience of international affairs and of the United Nations has been of inestimable service to the Committee. At difficult moments in its work you have brought order out of confusion. On many occasions in the corridors you have negotiated a way through conflicting and opposed positions. We are grateful for all you have done.

On behalf of the delegations of Australia, Canada and the United Kingdom, I wish to offer our most sincere and respectful thanks to you for the long, patient, wise and skilful service to the United Nations rendered by you as Chairman of this Committee.

Mr. DELEAU (France) (interpretation from French): Mr. Chairman, my delegation wishes to say how sorry we are that you have decided to withdraw from the chairmanship of our Committee. Those who, like us, have had the opportunity and the privilege of working under your guidance in the past years have appreciated your patience and authority, your efficiency and charm. We have happy memories of our work with you and we thank you for the great assistance you have thus given to our discussions. When you were called to fill a high governmental position in your country you retained for as long as possible your position as Chairman of our Committee because this was important to you. We should like to tell you that we were very flattered by this gesture on your part, coming as it did from a Foreign Minister; we naturally interpret it as a token of your belief in the usefulness of our work, and are encouraged by it.

Mr. FIORIO (Italy): I share the dubious privilege of being one of the oldest members of this Committee so I have had the real privilege of working with you, Mr. Chairman, in all the meetings over which you have presided and have been able to appreciate your diplomatic skill, intelligence and, above all, patience. So it is really sad for me to hear that you are leaving us. However, the loss of this Committee is the gain of Austria, so we cannot complain. All I can do is to wish you, on behalf of the Italian delegation, all the best in your new assignment and to hope that you will not forget all the people who are labouring here in space.

Mr. ASTRÖM (Sweden): The Swedish delegation is anxious to add its voice to those which have already expressed appreciation and gratitude to the outgoing Chairman. Foreign Minister Waldheim was elected because he was known as an eminently distinguished and skilful diplomat, with long experience and quite unusual qualities of fairness, objectivity, intellectual curiosity and patience and a sense of humour. These outstanding qualities, Sir, have made you an ideal Chairman of this Committee and if we have been able to register not insignificant progress in our work this has been due to a large extent to your contribution. But these same qualities, well known to your Government, are also the reason that you are now leaving us. Like a space ship you have risen above the dense and sometimes polluted atmosphere of humdrum bureaucracy and you find yourself in political orbit. We all wish you happy continued circling and a happy re-entry when that time comes.

May I, in this context, remind the Committee of the happy precedent in Austrian history, when one of your most eminent predecessors, Herr Metternich, rendered uninterrupted service for forty years.

It is difficult to conclude these good wishes without saying how innumerable are the personal good friends of Kurt Waldheim, the man, in and around the United Nations who, like me, see him leave this job with great sadness. We will remember him with continued friendship and affection.

Mr. RIHA (Czechoslovakia): Mr. Chairman, I too would like to express, on behalf of my delegation and that of Hungary, our thanks to you for having conducted the work of our Committee for so many years. We recognize the personal contribution you have made in the capacity of Chairman of this United Nations Committee. That is why we regret that you are leaving us. On the other hand, to be frank, we are happy to see you in your capacity as a member of the Government of one of our neighbouring countries. Vienna is not very far from our capital and I am sure that in the future we shall have many opportunities to be together again and to devote our common work to the development of friendly mutual relations between our countries. I wish you much success in your new office.

Mr. ARCRA (India). Mr. Chairman, we wish to join other delegations in the expression of their sentiments on your proposed retirement from the chairmanship of the Committee. We are sorry to see you leave this office which you have occupied with such distinction. You have given dynamic leadership to the Committee, which has made it possible for it to make distinct progress in its work in such a short period of time. The members of the Committee will miss your expert handling and wise guidance of the proceedings in its meetings. We should like to convey to you our best wishes for success in the new and hard duties as Foreign Minister which you are now taking on.

Mr. IWAI (Japan): Mr. Chairman, my delegation is very sorry to learn that you now find it necessary to leave your post as Chairman of our Committee because of the very heavy burdens of your task as Foreign Minister of your great country. You have guided the work of this Committee with the greatest patience and skill and we are very grateful to you for the countless contributions you have made to the success of our work. We hope that we shall see you again as often as possible at the United Nations. Meanwhile, permit me to offer you our most sincere best wishes for the future.

Mr. BAVAND (Iran): Mr. Chairman, my delegation deeply regrets that this Committee is to be deprived of your guidance and able leadership in its future work. We are sure that your contribution to the cause of peace will continue in the future in more effective ways. We wish you the greatest success in discharging your future responsibilities both in public and in private life.

Mr. CHAMMAS (Lebanon): I would start by saying, Sir, that I regret very much that owing to pressing business elsewhere my delegation has been unable to participate as fully as it would have wished in a Committee which has worked for some years under your able leadership. It is with sadness that we see you depart but you will certainly not be forgotten for you have left your mark on this Committee. If the work on the peaceful uses of outer space has been successful it has been thanks to you, because you were able, through your leadership, to bring about the sense of co-operation which this Committee needed in order to conclude its important work. Now you are leaving us: we will remember you affectionately and warmly and I hope that my country will be privileged to see you in Beirut in the near future. We wish you success.

Mr. DIACONESCU (Romania) (interpretation from French): I have already had the pleasure at yesterday's meeting of expressing to you, Mr. Chairman, the admiration of the Romanian delegation for the mastery and devotion with which you dedicated yourself to the success of the Vienna Conference.

The most striking result of the work of this Committee, the most important sections of the law of outer space, on the legal level, so far drafted were written and finalized under your wise guidance of the work of the Committee. As Vice-Chairman, I feel honoured to have been among those who benefited most from your great experience and competence. While regretting your departure, I should like to assure you of our gratitude and our constant friendship. The spirit shown in our Committee will be an example to be followed by others.

Mr. SOUZA E SILVA (Brazil, Rapporteur) (interpretation from French): Mr. Chairman, as Rapporteur, I should like to associate myself with all the representatives who have expressed their gratitude and admiration for the manner in which you have for so long carried out your functions as Chairman of this Committee. As the Rapporteur, and therefore a member of the Bureau, I have witnessed repeatedly the tireless devotion, patience and wisdom which you have always shown. May I take this opportunity to thank you for what you have said about my role as Rapporteur. On that subject I must say that without the intelligent and swift co-operation and the unfailing good will of the members of the Bureau and of the Secretariat it would not have been possible for us to produce this report so quickly.

I regret that I must now go back to the question of the report. I propose the inclusion of a new paragraph, which will be paragraph 7 (1), reading as follows:

(continued in English)

"At the 59th meeting of the Committee, the Chairman of the Committee, Dr. Kurt Waldheim (Austria), announced that in view of his duties as Foreign Minister of Austria, he is relinquishing his duties as Chairman of the United Nations Committee on the Peaceful Uses of Outer Space. The delegations of Argentina, Australia, Belgium, Brazil, Canada, Czechoslovakia, France, Hungary, India, Iran, Italy, Japan, Lebanon, Mexico, Morocco, Romania, Sierra Leone, Sweden, Union of Soviet Socialist Republics, United Arab Republic, United Kingdom, and the United States expressed their deep appreciation of the work of Foreign Minister Waldheim as Chairman of the Committee and extended their best wishes to him."

The CHAIRMAN: I thank the Rapporteur for his remarks and for the addition he very kindly wants to make to our report.

Mr. TEPAVITCHAROV (Bulgaria) (interpretation from French): In the name of the delegation of Bulgaria, I should like to express our regret, Mr. Chairman, at your withdrawing from the chairmanship of our Committee. I wish you the greatest success in discharging your responsibilities as Foreign Minister and in all your future undertakings.

I should like the name of Bulgaria to be added to the list of delegations which have expressed their gratitude to the Chairman.

The CHAIRMAN: I should like to express my heartfelt and most sincere thanks to all those who have spoken and have found such nice and warm words for me and for my work as Chairman of this Committee. I am deeply touched by these words of friendship which I shall always treasure in my memory. I extend to you once again my sincerest good wishes for all of you personally and for your future work. I would add only one thing, that I ask you to continue the work of this Committee in the same spirit of co-operation and friendship as has been shown in the nearly five years during which we have worked together.

The meeting rose at 4.55 p.m.

VERBATIM RECORD OF THE SIXTIETH MEETING

Held on Tuesday, 22 October 1968, at 10.30 a.m.

<u>Temporary Chairman</u> :	Mr. DIACONESCU	(Romania)
<u>Chairman</u> :	Mr. HAYMERLE	(Austria)

ELECTION OF THE CHAIRMAN

The TEMPORARY CHAIRMAN (interpretation from French): The purpose of the present meeting, as explained by the Chairman of the Committee at the 59th meeting, is to elect a new Chairman to succeed His Excellency Mr. Kurt Waldheim who, by reason of his responsibilities as Minister of Foreign Affairs of Austria, has announced that he will be unable to continue to discharge his duties as Chairman of the Committee.

Last Friday we heard the very flattering statements made by all members of the present Committee concerning the extremely valuable work done by Mr. Waldheim. I should like to take this opportunity, speaking on behalf of the Committee, to express once again to Mr. Waldheim our appreciation for the skill and the competence with which he has directed the work of this Committee for over three years. I wish to stress especially the important positive results achieved under his leadership, which are due in large measure to the spirit of co-operation that he has displayed in his constant contacts with the representatives of Member States in an attempt to arrive at concerted solutions which would take into account all the points of view and interests involved. I ask the delegation of Austria to be good enough to transmit to Mr. Waldheim our sincere gratitude and our best wishes for success in the fulfilment of the highly responsible tasks that have been entrusted to him as the head of the Ministry of Foreign Affairs of the friendly country of Austria. We are now going to elect the new Chairman of the Committee and I invite representatives to put forward their nominations.

Mr. ASTRÖM (Sweden): I take great pleasure, on behalf of the Swedish delegation, in nominating for the post of Chairman of the Committee on the Peaceful Uses of Outer Space the Permanent Representative of Austria to the United Nations, Ambassador Heinrich Haymerle. I do not need many words to introduce Ambassador Haymerle. He is already well known to all of us.

In order to explain the qualifications which make him eminently suited to assume this task, let me briefly recall his career so far. In the service of his own country he has been Director of Political Affairs in the Ministry of Foreign Affairs of Austria twice, from 1956 to 1960 and again from 1964 to 1968. In the last year of his service he held the additional post of Deputy Secretary-General for Foreign Affairs.

(Mr. Aström, Sweden)

He served with equal distinction as his country's Ambassador to Moscow from 1960 to 1964. He has wide experience in international organizations. I may recall that for three years he has represented his country here at the United Nations.

From a long and pleasant personal association with Ambassador Haymerle, I wish to report that, in addition to his formal qualifications, he has personal qualities which, in my view, are equal to the delicate and very difficult character of the task that it is my hope that he will assume as Chairman of this Committee. He has the tact, the caution, the knowledge and the objectivity which characterize the traditions of Austrian diplomacy. He possesses these qualities in full measure.

(Mr. Aström, Sweden)

I am convinced that Mr. Haymerle, as Chairman of the Committee on the Peaceful Uses of Outer Space, will continue the valuable traditions which were initiated by his predecessor, the present Foreign Minister of Austria. I venture to express the hope that the Committee will unanimously elect Mr. Haymerle as Chairman of the Committee.

Mr. ARORA (India): We are glad to support and second wholeheartedly the nomination of Mr. Haymerle, permanent representative of Austria, to the post of Chairman of this Committee, made just now by the representative of Sweden.

The representative of Sweden has spoken of the exceptional diplomatic career of Mr. Haymerle. He has occupied high posts in the Austrian Ministry of Foreign Affairs and held key diplomatic assignments, including his successful term of duty at the United Nations. Mr. Haymerle has attended eight sessions of the General Assembly and is therefore rich in experience with the functioning of the United Nations, and we are aware of his outstanding contribution to the world done here.

We should be thankful to the Government of Austria for providing a distinguished succession of Chairmen for this Committee. Mr. Matsch, the first Chairman of the Committee, charted out a well defined course for the Committee and the credit goes to him for giving it a good start. Then Mr. Waldheim presided over this Committee for nearly five years. His diplomatic skill, endless patience, vigour, energy, and an intense desire to serve the best interests of the Committee guided it through an important phase in its work. Fittingly, he had the honour to preside over the Conference on the Exploration and Peaceful Uses of Outer Space, held in Vienna in August of this year.

Now it is fortunate for this Committee to be able to have a Chairman of Mr. Haymerle's experience, foresight and qualities to continue to a fruitful conclusion the work started by his distinguished predecessors. We offer our unqualified co-operation and assistance to Mr. Haymerle and wish him all success in his new duties.

Mr. DIACONESCU (Temporary Chairman) (interpretation from French): The representative of Sweden nominated Mr. Heinrich Haymerle, permanent representative of Austria to the United Nations, to the post of Chairman of the Committee on the Peaceful Uses of Outer Space. That nomination was supported by the representative of India. I take it that there are no other nominations. This being so, I declare Mr. Heinrich Haymerle elected unanimously to the post of Chairman of our Committee, and it is with particular pleasure that I address to him my most sincere congratulations and best wishes for his success in fulfilling the most important mission which has now been entrusted to him.

I should like to assure you, Mr. Chairman, that in my capacity of Vice-Chairman of the Committee I shall do my utmost to facilitate your task.

I should like to take this opportunity to address to the delegation of the United States our sincere congratulations upon the successful fulfilment of the mission of the three astronauts who returned to earth this morning after a flight of eleven days in outer space.

Now it is my pleasure to invite Mr. Heinrich Haymerle to assume the direction of the Committee.

The CHAIRMAN: I wish first of all to express my sincere gratitude and appreciation to all members of this Committee for the honour they have bestowed upon my country and myself in electing me to the chairmanship of this Committee. A special word of thanks goes to the representative of Sweden, Mr. Aström, and the representative of India, Mr. Arora, who proposed and seconded my nomination and who, in doing so, found such kind words for Austria, for my two predecessors -- Mr. Matsch and Mr. Waldheim -- and for myself.

The task which I assume today is difficult and challenging. It is made so much easier by the fact that I am welcomed in this Committee by so many of my old and personal friends. May I assure the Committee that I shall do everything in my power to justify the confidence it has placed in me. The work of this Committee has always been conducted in an encouraging atmosphere, marked by the desire and determination to arrive at commonly agreed solutions. I am confident that with the experience, co-operation and understanding of the whole Committee we will succeed in pursuing this course, and that our work will, as in the past, produce positive and constructive results.

(The Chairman)

In this respect I turn particularly to my colleagues on the Bureau, our Vice-Chairman, Mr. Diaconescu, whom I should like to thank especially for the kind words he has just pronounced after my election, and our Rapporteur, Mr. Silos. It is indeed encouraging for me that in the fulfilment of my duties I shall be able to count on their long experience in, and devotion to, the work of this Committee.

It is also a matter for comfort to know that I shall be assisted in my task by the competent officers of the Secretariat, in particular the Under-Secretary, Mr. Kutakov, his Deputy, Mr. Vellodi, and the Outer Space Affairs Group headed by our friend, the competent Secretary of this Committee, Mr. Abdel-Ghani.

I assume this office at a moment when a new and inspiring page in the history of man's entering into space has been written. We have just learned with very deep satisfaction that the American astronauts who had circled the earth for the past eleven days have this morning successfully completed their mission and have safely returned to earth. Our admiration for their courage and achievement goes to them at this moment, and on behalf of all members of the Committee I should like to extend our sincerest congratulations to the delegation of the United States. May I ask it to convey this message from our Committee to the three astronauts.

The great achievements of all countries engaged in the exploration and use of outer space, and especially the impressive accomplishments of both the Soviet Union and the United States, are indeed a challenge to our Committee to continue with vigour and determination its modest contribution to man's great venture in this field.

Mr. HILDYARD (United Kingdom): Mr. Chairman, may I first of all offer you, on behalf of my delegation, our warmest congratulations on your election as our new Chairman, and also to associate my delegation with the tributes which were paid to you personally by the representatives of Sweden and India. Through you, we should also like to convey our warmest gratitude to the Government of Austria.

(Mr. Hildyard, United Kingdom)

Ever since outer space was first debated at the United Nations, at the thirteenth session of the General Assembly in 1958, Austria has been closely and effectively associated with our deliberations. All Member States are indebted to the Austrian Government for the forethought, resource and efficiency with which it conducted the arrangements for the very successful outer space conference which was held in Vienna in the second half of August. We are also indebted over a much longer period for the impartiality and tact with which Austria, from the Chair, has presided over this Committee.

My delegation had an opportunity, when addressing this Committee on 16 October, to pay a tribute to your distinguished predecessor in office, Foreign Minister, Mr. Waldheim. May I express to you, Sir, the confidence of my delegation and of the Government of the United Kingdom that, under your guidance, this Committee's business will, as in the past, be conducted in a positive and effective manner to the benefit not only of its members but of the whole world community.

May I conclude by associating my delegation and Government with the very warm tribute which you, Sir, paid to the delegation of the United States on the success of that remarkable venture, Apollo 7.

Mr. EL-KONY (United Arab Republic): Mr. Chairman, it is a great privilege for me to present to you, Sir, our sincere congratulations. Your long and distinguished career in the Austrian Foreign Service, where you occupied the post of Political Director and Deputy Secretary-General for Foreign Affairs, and Ambassador in prominent places, coupled with your deep knowledge of United Nations affairs, will make you a very distinguished Chairman of this Committee.

On this occasion, I should like to pay a sincere tribute to our former distinguished Chairman, the Foreign Minister of Austria, His Excellency Mr. Kurt Waldheim, whose tireless efforts and sagacity have been an enormous and invaluable asset for this Committee. His achievements and his dedication to the United Nations and its principles will always be cherished in this world Organization.

Mr. PIMADOV (Union of Soviet Socialist Republics) (interpretation from Russian): Mr. Chairman, I should like to associate the voice of the Soviet delegation with those congratulations which we have heard and which we are still to hear that were extended to you. I should like, Ambassador Haymerle, to dwell in particular on your outstanding qualities in connexion with your activities which were especially pleasant for me when, from 1960 to 1964, you were Ambassador Extraordinary and Plenipotentiary of Austria in Moscow. All the activities of the representatives of Austrian diplomacy are very closely and traditionally linked with our Committee, and thus far these have been most fruitful, and it would seem to me that we have every reason in welcoming you, as our new Chairman, to be confident of the fact that we shall continue to have in the person of Ambassador Haymerle a worthy Chairman of the Committee on the Peaceful Uses of Outer Space.

In availing ourselves of this opportunity, I should also like to offer our most sincere feelings of gratitude and admiration to the United States delegation and to its people. This is a feeling which all of us here share today. It is probably difficult for us to assess the great significance of the Apollo flight and the brilliant successes connected with the presence in the cosmos during these many days of the three American astronauts headed by Captain Schirra. I wish most sincerely on my own behalf, and on behalf of the Soviet delegation, to congratulate the United States delegation upon this outstanding feat.

Mr. DELEAU (France) (interpretation from French): Mr. Chairman, my delegation wishes to convey to you its most sincere congratulations on the occasion of your election to the Chairmanship of our Committee. We know of your brilliant diplomatic career and of your special experience which you have had in international organizations; in Paris, we remember very well the period during which you were Director of the Organization for European Economic Co-Operation. We are thus ensured that all of this experience, added to your personal qualities, will make of you in this Committee a Chairman who -- like your predecessors, Mr. Matsch and Mr. Waldheim -- conducts our work with skill and who will help us to continue our task.

May we assure you of our fullest co-operation at all times and tell you how gratified we are to think that we shall be working in the future under your guidance.

(Mr. Deleau, France)

Since I have the floor, Mr. Chairman, if you will permit me, I should like to address to the delegation of the United States the most heartfelt congratulations of the French delegation for the wonderful success of the Apollo 7 mission and of the three astronauts who have just completed the remarkable assignment that was entrusted to them.

Mr. GOMLAND (Argentina) (interpretation from Spanish): The feelings of gratitude of the Argentine delegation to His Excellency the Foreign Minister of Austria for the efficient manner in which he has presided over this Committee were expressed at the meeting held by this Committee last week. We, therefore, enthusiastically endorse the praise that was voiced for the work accomplished by Mr. Waldheim and, once again, we ask the delegation of Austria to take note of our appreciation.

Today, my delegation wishes to express its satisfaction upon your election, Mr. Chairman. Your outstanding qualities guarantee that this Committee will maintain its high degree of efficacy and the same spirit of co-operation that has prevailed thus far. Therefore, we wish to express to you our congratulations and the unconditional readiness of the Argentine Government to render its co-operation for the success of your important functions.

Lastly, my delegation wishes to express its congratulations to the delegation of the United States for the success achieved this morning with the successful culmination of the Apollo 7 mission.

Mr. MELLO (Mexico) (interpretation from Spanish): First of all, Mr. Chairman, I should like to associate the Mexican delegation with the expressions of congratulations addressed to you upon your unanimous election to the post of Chairman of our Committee, and to assure you that at all times you may rest assured that you will have the active co-operation of the Mexican delegation.

Since I have the floor, I should like to avail myself of this opportunity to address to the delegation of the United States of America our most sincere and warmest congratulations upon the success achieved with the completion this morning of the mission of the Apollo 7 flight.

Mr. EVANS (Australia): Mr. Chairman, it gives the delegation of Australia great pleasure to join those other delegations here this morning who have welcomed your election to the position of Chairman of our Committee. We join others in pledging our full co-operation to you in your efforts to continue the course of this Committee on the successful direction which your predecessors have already set forth. I am sure, Mr. Chairman, that under your wise guidance and leadership the Committee will undergo several successful orbits in its future work in the outer space field and if occasion should arise where, as a result of re-entry, we temporarily have our antennae submerged below water level, we -- I am sure, Mr. Chairman -- are confident that you will help us to retain our equilibrium. And in saying that, Mr. Chairman, may I also join other delegations here this morning in offering sincere congratulations on the successful achievement of the Apollo 7 feat to the Delegation of the United States.

Mr. TURNER (Canada): Mr. Chairman, the Canadian delegation shares fully in the general satisfaction already evident in this Committee in respect of your unanimous election to the post of Chairman of the Committee. It is a tribute to you and to your country; it represents recognition of the highly constructive role played by Austria in this Committee and, indeed, in the Organization.

Your initial statement, Mr. Chairman, has already demonstrated the fact that you will maintain the high standards set by your predecessors in the guidance of this Committee's work.

In conclusion I should like to thank you for extending, on our behalf, congratulations to the Government of the United States and to the three courageous astronauts who have just completed a highly impressive and successful mission in space.

Mr. DENORME (Belgium) (interpretation from French): Mr. Chairman, may I be permitted to offer to you, on behalf of the Belgian delegation, the most heartfelt and sincere congratulations upon your unanimous election to the post of Chairman of this Committee. You are the third representative of an illustrious dynasty. The founder of this dynasty, Ambassador Franz Matsch, preceded the person who was recently called to serve as the Foreign Minister of your country, Austria.

(Mr. Denorme, Belgium)

My delegation wishes to be fully associated with the praise that was extended at the previous meeting and today to the Minister of Foreign Affairs, Mr. Waldeheim, for his eminent qualities. Previous speakers have likewise recalled your brilliant career and your qualities of wisdom, caution and authority. Those qualities ensure that you will direct our deliberations skillfully and that you will preside over them with the same effectiveness as your predecessors.

My delegation wishes to assure you of its co-operation.

Lastly, I should like to take this opportunity to congratulate the delegation of the United States upon the outstanding success of the Apollo 7 mission.

Mr. AMBROSINI (Italy) (interpretation from French): Mr. Chairman, the Italian delegation wishes to be associated with the compliments which have been addressed to you upon your election as Chairman of this Committee. I shall not recapitulate the qualities of your personality -- so well known and so very highly appreciated in this Organization. On the contrary, I should like to recall that you have a rather difficult task to fulfil in this Committee, especially in regard to the elaboration of the drafts on liability, which, we must recognize, is a complex and difficult undertaking; but we cherish the hope that under your guidance we shall be able to succeed now and at the next session, so that it may be possible to present a draft convention defined and approved by our Committee.

Mr. Chairman, I still have the splendid memory of the welcome which your country offered us at the last conference held in Austria. It was the first one held there, and I hope it will be followed by others of a similar character. In that beautiful capital of Austria, Vienna, replete with ancient civilization and beautiful culture, we were able to enjoy the truly remarkable welcome given us by your country and by the City of Vienna itself. We are happy that Mr. Waldheim was not only the Chairman of this Committee but also that he was the Minister of Foreign Affairs of his country.

I should also like to say a few words to offer the congratulations of the Italian delegation to the United States on the magnificent flight accomplished by

(Mr. Ambrosini, Italy)

Apollo 7. It is an exploit that assures us that, in the very near future, the astronauts -- be they American or Russian, or be they citizens of any other country -- will be able to set foot upon the natural satellite of the earth.

I should like to add a purely personal comment, if I may. I know Mr. Schirra, the captain of Apollo 7, and I hope to be able to pay tribute to him personally by offering to him a gold medal that has been prepared in connexion with his last flight. He has declared that Apollo 7 would be his last such flight because he indicated that he was already getting on in years. But, as compared to me, perhaps he is still very much a young man. Be that as it may I should be truly gratified were I able, in the next few days, to shake his hand and, in this connexion, I hope even closer co-operation will establish itself between the great space Powers -- great especially in the field of human progress.

Mr. GOTHANOV (Czechoslovakia): It is a great honour and special privilege to associate my delegation with the warm words which have been addressed to you by many distinguished representatives. Your brilliant career as a diplomat and remarkable personal qualities will be invaluable assets for us all. They will contribute, there is no doubt, to the successful consideration of programmes which are and will be before our Committee. We look forward to working under your guidance.

I should also like to offer our congratulations to the delegation of the United States for the successful completion of the mission of the three brave American astronauts.

Mr. UCHINO (Japan): My delegation associates itself with the preceding delegations in expressing our hearty congratulations to you, Sir, on the occasion of your unanimous election as Chairman, and also in pledging our future co-operation to you.

On this occasion, I wish to express our hearty congratulations and admiration to the delegation of the United States of America for the remarkable success of the Apollo 7, which was safely returned to earth this morning.

Mr. SOUZA E SILVA (Brazil) (interpretation from French): I now wish to associate the voice of Brazil with all those that have already congratulated you upon your election to the post of Chairman of our Committee. We know that your experience, your skill in international affairs, give us a guarantee that you will follow the tradition of competence and efficacy established in the Chairmanship of our Committee.

May I also be permitted, Mr. Chairman, through you to convey the congratulations of my delegation to the delegation of the United States of America upon the feat that has just been accomplished by the astronauts of the Apollo 7 mission.

Mr. BAVAND (Iran): I should like to join my predecessors in expressing my heartfelt congratulations on your unanimous election to the Chairmanship of this Committee. We are sure that under your wise guidance and able leadership this Committee will continue its successful achievements, as before.

At the same time, I should like to capitalize on this occasion and extend my heartfelt congratulations to the delegation of the United States for the magnificent achievements of the Apollo 7 programme.

Mr. TEPAVICHAROV (Bulgaria): The Bulgarian delegation shares the feelings of the other delegations which have expressed their satisfaction upon your election to the post of Chairman of our Committee. My delegation would wish to assure you of its entire loyalty in assisting you to fulfil your tasks.

I should also like to extend our most respectful congratulations upon the magnificent success achieved by the Apollo 7 experiment.

Mr. THACHER (United States of America): We welcome the opportunity to join other delegations in extending our very deep felt congratulations to you for agreeing to serve as our Chairman. We had the opportunity last Friday to express the very high esteem with which we view Foreign Minister Waldheim, and it reminds us that this Committee has been unusually well served by its officers ever since the creation of this Committee; not only Ambassador Matsch, Ambassador and later Foreign Minister Waldheim, and now yourself, Sir, but also the Vice-Chairmen, Ambassador Haseganu, and now Ambassador Diaconescu, and the sole surviving member of that original band of three brave men, Ambassador Silos, who has been our Rapporteur since 1961. There are also the Chairmen of our Sub-Committees, Ambassador, now Justice, Lachs, who accomplished so much while he presided in the Legal Sub-Committee; his very worthy successor and our colleague from New York, Eugene Wyner, and Professor Martin of Australia, who has given a great leadership to the work of the Technical Sub-Committee.

The statements made this morning with regard to the accomplishments of the three astronauts on Apollo 7 were very generous, and my delegation will, of course, convey them in full to the astronauts at the earliest opportunity.

I think that the accomplishment of these three men reminds us that now more than thirty men -- very brave men -- have taken part in this peaceful conquest, the peaceful exploration of outer space. It serves also to remind us that the work of this Committee is not completed, that there is much that lies ahead of us, and that we are in a sense in a race with the astronauts and the thousands of men who stand behind their accomplishments, to ensure that they do not get too far ahead of us as we deal with the problems and the benefits of outer space.

My delegation is completely confident that under your wise leadership we will not fall behind but will continue to record the significant progress which this Committee has achieved in recent years.

The CHAIRMAN: May I express my sincere thanks to all the delegations which were kind enough to find words of appreciation for my country and for the contribution my two predecessors have made to the work of this Committee. I shall not fail to transmit your messages both to Ambassador Matsch and to Foreign Minister Waldheim.

May I further thank very much indeed all of you who have been kind enough to welcome me as Chairman of this Committee in such a friendly and personal way. May I repeat again, it is encouraging indeed for a newly elected Chairman to know that he will be assisted in his work not only by distinguished, competent and experienced delegates, but also by so many personal friends and colleagues with whom he has already been associated in one way or another for many years. It is with real pleasure that I am looking forward to our common work.

The sixtieth meeting of this Committee this morning had only one item on the agenda. I highly appreciate that you have been able to attend this meeting in spite of the many commitments which I know all delegations have these days.

(The Chairman)

The work of this Committee, as members will recall, was outlined in the report that was adopted only a few days ago and which will now be submitted to the General Assembly. In the light of the decisions that the General Assembly will take on our report, the Bureau of the Committee will, as in the past, in close consultation with all members of the Committee, take the necessary steps to proceed with our work. It will convene the Committee again when that becomes necessary and appropriate.

May I conclude with one personal remark. In this second half of the twentieth century, the most rewarding and inspiring task a diplomat can be entrusted with is, perhaps, to assist in translating the momentous achievements of science and technology into the political and social development of our society. This Committee is playing an active part in this respect. It is a source of deep satisfaction to me that I will from now on, together with all members, be associated with this inspiring work and challenging task.

The meeting rose at 11.40 a.m.