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COMMITTEE ON THE PEACEFUL USES OF OUTER SPACE

VERBATIM RECORD OF THE SECOND MEETING

Held at Headquarters, New York,
on Monday, 19 March 1962, at 3 p.m.

Chairman:

Mr. MATSCH

(Austria)

1. Opening of the meeting by the retiring Chairman
2. Adoption of the agenda
3. Election of officers
4. Statement by the Chairman on the Committee's work
5. Programme and organization of the work of the Committee

* This final record includes any delegation corrections received to the original speeches and consequent corrections to the simultaneous interpretations, where appropriate.

OPENING OF THE MEETING BY THE RETIRING CHAIRMAN

The CHAIRMAN: Since our first meeting, on 27 November of last year, the exploration of outer space has made further progress. Also, the sixteenth session of the General Assembly devoted much attention to the question of international co-operation in this matter and unanimously adopted, on 20 December 1961, resolution 1721. This resolution commends to States important principles for guidance in the exploration and use of outer space. It calls upon States to furnish information concerning the launching of objects into outer space for registration by the United Nations, and it requests the co-operation of the World Meteorological Organization and the International Telecommunication Union.

Furthermore, the General Assembly, in that resolution, reaffirmed its resolution 1472 of the fourteenth session.

The membership of our Committee was continued and increased by the addition of four new members: Chad, Mongolia, Morocco and Sierra Leone. I should like to take this opportunity to extend an especially warm welcome to the representatives of these new members of our Committee.

Finally, I should like to introduce to the Committee its newly appointed Secretary, Mr. Abdel-Ghani, who is replacing Mr. Chai.

ADOPTION OF THE AGENDA

The agenda was adopted.

ELECTION OF OFFICERS

The CHAIRMAN: Are there any nominations or proposals to make?

Mr. JHA (India): It is my very pleasant duty -- actually it is not a duty so much, it is something which I have very gladly adopted for myself -- to nominate you, Mr. Chairman, Professor Haseganu, the permanent representative of Romania and Dr. Silos of Brazil respectively for the posts of Chairman, Vice-Chairman and Rapporteur.

As you know, this Committee, after a great many vicissitudes and delays, came into being and we had a meeting toward the end of last year. It was a formal meeting, but it was an initiation ceremony nevertheless. It was an auspicious initiation ceremony not only because at last the Committee got going, but also because it was able at that meeting to choose for the Committee at that time most able officers.

In you, Mr. Chairman, we were able to secure agreement on the election of a Chairman in whose ability and capacity for moderating views and situations and ability to sum up the conclusions and decisions of this body we found someone who could secure universal acceptance. Your career with international organizations, a list of which is too long for me to read, is known to everyone. Your association with international affairs ranges over almost forty years, ever since you started your career with the League of Nations. During recent years we have been familiar with you as a respected and valuable colleague in the United Nations and as a first-class Chairman of very difficult Committees, among which I should mention the First Committee of the General Assembly. I have very great pleasure in proposing you again to be Chairman of the Committee as now constituted.

Professor Haseganu of Romania has been with us not too long, but even during this period he has created a deep impression of reasonableness, understanding and desire for co-operation. His amiability and his quality as a reasonable man -- and that is a very great quality for anyone to have at the United Nations -- have endeared him to all of us. He comes to us with great experience of teaching. He has been a professor of economic geography. He is a graduate of the Institute

(Mr. Jha, India)

of Economic Science at Bucharest. He is the author of several books and has been in the diplomatic service of his country since 1959. He was the Romanian Ambassador in Prague from 1959 to 1961, and since then he has been permanent representative at the United Nations.

Dr. Silos of Brazil is also perhaps from the point of view of time rather new to us, but all of us have been deeply impressed by his intelligence, by his friendliness and by the universal goodwill that he generates. He was elected Rapporteur of the Committee last year. It is my pleasure to nominate him again for that very responsible post in this Committee.

So I formally propose, and with very great pleasure and a sense of privilege, Dr. Matsch as Chairman of our Committee, Ambassador Haseganu as Vice-Chairman and Dr. Silos as Rapporteur.

The CHAIRMAN: There are no further nominations.

Mr. Matsch (Austria) was elected Chairman by acclamation.

Mr. Haseganu (Romania) was elected Vice-Chairman by acclamation.

Mr. Silos (Brazil) was elected Rapporteur by acclamation.

The CHAIRMAN: I should like on behalf of my two colleagues to express to all members of this Committee our thanks for the renewed expression of confidence in the Bureau. In particular I should like to thank Ambassador Jha for the initiative he has taken in order to reinstall the Bureau. I hope that this is an auspicious omen for the harmonious and successful continuation of our work.

It seems that our Committee is meeting at a moment which gives reason for hope and encouragement. Only recently the leaders of the two major countries involved in the exploration of outer space have reiterated their belief in international co-operation in the peaceful uses of outer space. Premier Khrushchey and President Kennedy have expressed themselves in favour of international co-operation in the field of outer space. The Soviet Premier, in a message to President Kennedy, said:

(The Chairman)

"If our countries pooled their efforts, scientific, technical and material, to explore outer space, this would be very beneficial to the advance of science and it would be acclaimed by our peoples."

To this President Kennedy replied:

"I welcome your statement that our countries should co-operate in the exploration of space. We of course believe also in strong support of the work of the United Nations in this field."

In addition, President Kennedy has recently made to Premier Khrushchev concrete proposals for an immediate project of common action in the exploration of space. In this spirit, it is my sincere hope that this Committee will proceed to the successful accomplishment of its task.

STATEMENT BY THE CHAIRMAN ON THE COMMITTEE'S WORK

The CHAIRMAN In connexion with this item of our agenda, I should now like to draw the attention of the Committee to the following points connected with the conduct of our business. In the first place, I should like to place on record that through informal consultations it has been agreed among the members of the Committee that it will be the aim of all members of the Committee and its sub-Committees to conduct the Committee's work in such a way that the Committee will be able to reach agreement in its work without need for voting. Unless I hear any objection, I would say that the Committee agrees to this procedure which is on the verbatim record. As I do not hear any objection, it is so agreed.

It was so decided.

The CHAIRMAN: I now invite the Committee's attention to the question of the records of the Committee's meetings. We shall have to agree whether the records of the meetings of our Committee should be kept as a summary record or as a verbatim record.

(The Chairman)

I might mention in this context that the record of the first meeting of the Committee was a verbatim one. Lately I have consulted with some members of the Committee on this matter and it seems that they would prefer to have verbatim records. If I hear no objections, I shall assume that the Committee wishes to have its proceedings published in the form of verbatim records.

It was so decided.

The CHAIRMAN: I should like now to invite the attention of the members of the Committee to the fact that a number of specialized agencies, government and non-governmental organizations, have expressed their interest in the deliberations of our Committee and their desire to make contributions to our work. Among these United Nations agencies are, in particular, the World Meteorological Organization, the International Telecommunication Union, the United Nations Educational, Scientific and Cultural Organization and the Committee on Space Research of the International Council of Scientific Unions, all mentioned in General Assembly resolution 1721. I understand that in similar cases it has been the practice of the Committees of the General Assembly to grant to such organizations the status of observers and to allow the representatives of these specialized agencies to participate in the work of the Committee whenever it seems necessary. If it is agreeable to the Committee, I would therefore suggest that we proceed in a similar fashion. If I hear no objections, I will assume that the Committee agrees that the three aforementioned specialized agencies and COSPAR should, upon their request, be invited to attend the meetings of our Committee in the capacity of observers. The Committee may consider requests from other specialized agencies and organizations at a later stage of its work. If, therefore, we receive requests from the three specialized agencies I mentioned before and COSPAR, and if the Committee agrees, we will invite them to act as observers to our work. If I hear no objection, I shall take it then that this suggestion is agreeable to the Committee.

It was so decided.

The CHAIRMAN: The main issue before the Committee is its programme and the organization of its work on the bases of General Assembly resolutions 1472 (XIV) and 1721 (XVI). A number of matters are included in these resolutions which will require our attention.

Finally, I should like to inform the Committee that the Acting Secretary-General, in accordance with the provisions of paragraphs 1 and 2 of part B of General Assembly resolution 1721 (XVI), has established a public registry of information,

(The Chairman)

furnished by States with regard to launching of objects into orbit or beyond. The Acting Secretary-General has further, in conformity with part C of resolution 1721 (XVI), requested the World Meteorological Organization in January to submit a report on specific questions mentioned in part C, paragraphs (a) and (b). The International Telecommunication Union was similarly invited to submit a report in conformity with part D of this resolution.

PROGRAMME AND ORGANIZATION OF THE WORK OF THE COMMITTEE

The CHAIRMAN: We are now reaching item 5 of our agenda and the Chair invites members to express their views on the question before us, particularly with regard to the programme and organization of the work of the Committee.

Mr. JHA (India): I beg your forgiveness for intervening at this stage because I know that all who are here are very interested in hearing the statement of the representative of the United States. As regards the procedure that you just now put to us, in which it was decided to invite certain specialized agencies and COSPAR to attend our meetings as observers and to participate when necessary, I would like to suggest, although this decision is perfectly good, that not only should we wait for a request of this nature by any of the bodies but that this Committee should take the initiative, when necessary, to invite organizations who can be of assistance for our purposes. I feel that this is a rather important principle because I would like to retain for this Committee its initiative at all times in such matters, as well as in any other matters pertaining to the organization of our work.

Therefore, I thought I might take this opportunity, while wholly concurring with your formulation which has already been agreed to by the Committee, to mention this reservation -- that the Committee should itself, without even waiting for applications or requests by organizations which are in a position to help us, that this Committee could itself take the initiative and invite them when and if necessary.

The CHAIRMAN: If the Committee is agreeable, I would suggest that the Chair is inviting the three specialized agencies, UNESCO, ITU and WMO, as well as COSPAR, to act as observers. Therefore, we are now following the suggestion of India, if the other members agree, that the initiative will be taken by our Committee and we shall invite the three specialized agencies and COSPAR to attend our meeting tomorrow.

It was so agreed.

The CHAIRMAN: I have mentioned before that, with regard to the other agencies and international organizations, both governmental and non-governmental, it will be up to the Committee to invite them, as seems appropriate, if their advice and collaboration would be useful, if the Committee agrees to this.

Mr. PLIMPTON (United States of America): This is the inaugural meeting of the expanded United Nations Committee on the Peaceful Uses of Outer Space. The United States Government, for which I have the honour to speak at this table, regards this meeting as potentially -- I stress potentially -- one of the truly significant moments in the history of man's search for peace. It is up to us here at this table, and to the Governments and the scientific communities for which we speak, to do all that we can to translate that potential into fact.

The space age -- the age of man's conquest of the earth's gravitational field -- is now four and a half years old. The launching of artificial earth satellites, which was a wonder of the world four years ago, is now commonplace. Many new vistas of scientific and technical achievement in outer space can now be envisaged, some clearly, others still only in dim outline. But there can be no question whatever that these new vistas will be explored -- whether by this generation or the next.

Now, why should this development concern the United Nations? And why should this particular meeting be so significant? I believe the answer is two-fold: First, this is the first meeting among Governments, for the purpose of planning international co-operation in the peaceful uses of outer space, at which all countries now capable of space launchings are represented.

(Mr. Plimpton, United States)

Secondly, the United States Government looks upon this United Nations Committee as serving an interest in the promise of the space age which is shared, not just by the great Powers, but by the scientists and the technicians and the ordinary people of every region and the continent of the world.

Space science and space technology are not the exclusive preserve of a few advanced countries: The special abilities which they require are distributed among many nations; and as far as the benefits to man's life on earth are concerned -- better communications and more accurate weather forecasting in particular -- no people anywhere in the world should be excluded from them. This is a field in which many can contribute and all can benefit.

Nations need to co-operate at several different stages of the space effort. Let me specify:

First, even the most advanced and expensive technical field -- that of major space launchings -- is not going to be forever limited to the United States and the Soviet Union. A number of nations of Europe are already developing a joint space launching programme of their own; and doubtless others will embark on this course, too, as rocket technology develops. Co-operation among the growing number of launching authorities will be an obvious desirability and necessity.

Second, scientists and technicians the world over can co-operate in developing instruments and experiments for inclusion in satellites and sounding rockets. The United States is already engaged in such peaceful co-operative projects with eight of the nations represented on this Committee.

Third, many Governments and scientific communities can co-operate in placing scientific instruments and experiments inside the space capsules to be launched.

Fourth, space vehicles, once launched, must be tracked, and the vital scientific information which they transmit must be received on earth. As Colonel John Glenn put it recently, in this building, his flight was "not only a national team effort, but international, as well." This international co-operation must and will be developed further; and many Governments, and scientific communities will be doing the furthering.

Fifth, numerous legal questions will arise as the space age progresses, requiring the development by the nations of common legal doctrines and standards. Outer space is thus an important area for the future growth of international law.

Sixth, finally, as I said, every people and nation stands to benefit from these activities. What nation that wishes to improve its crop yields can fail to be interested in the potential benefits of more accurate weather forecasting by satellite? What nation that wishes to multiply its people's friendly contacts with the rest of the world can fail to be interested in world-wide television on which its people may both see and be seen, both speak and learn, half-way round the globe?

It is difficult for us to grasp these new possibilities. Last 4 December, in the First Committee debate in which this meeting had its origin, Ambassador Stevenson, speaking for my country, referred to that difficulty in these words:

"Despite the urgent need for immediate international action, I fear that we come to this subject ill-prepared to think clearly about it. I suspect that we are handicapped by our heritage of thought about the affairs of this single planet." (A/C.1/PV.1210, page 2)

A great deal has happened in the three and a half months that have passed since that statement was made. As we open these significant meetings, I dare to hope that we may lift ourselves above that earth-bound "heritage of thought", inspired by the realization that we already have entered an age of great exploration, high adventure, and unpredictable benefit for the human race. Let me review briefly with you the most notable of those developments, some of which are the direct outcome of the unanimous adoption by the sixteenth General Assembly of the resolution on International Co-operation in the Peaceful Uses of Outer Space, to which I have referred, resolution 1721 (XVI).

First, that resolution expanded the membership of this Committee and requested it to carry out the mandate of the resolution that established it in 1959, resolution 1472 (XIV) as well as the mandate of the new resolution. This means that two years of dangerous stalemate have been broken and that a competent body of the United Nations can take up again the urgent problems of the age of

outer space in which we find ourselves. This is what this Committee is meeting for today -- the first step in what I hope will become a long and rewarding record of constructive work on behalf of all United Nations Members.

Second, in the General Assembly's unanimous approval of the outer space resolution, all the Members of the United Nations have committed themselves to basic principles of the greatest significance. They are:

That the exploration and use of outer space should be "only for the betterment of mankind and to the benefit of States, irrespective of the stage of their economic or scientific development."

That "international law, including the Charter of the United Nations, applies to outer space and celestial bodies";

That outer space and celestial bodies are "free for exploration and use by all States, in conformity with international law, and are not subject to national appropriation";

Finally, that the United Nations should provide a focal point for international co-operation urgently needed in the common interest of mankind. That is to say that we -- all of us -- the members of this Committee, and all other Member States of the United Nations, are committed to the free exploration and free development of the great reaches of outer space, under the rule of law, on the basis of international co-operation and for the benefit of all nations and all peoples.

We have rejected the concept of national sovereignty in outer space. No moon, no planet, shall ever fly a single nation's flag. These principles are sound principles, and I take this opportunity to re-endorse them heartily on behalf of the United States Government.

(Mr. Plimpton, United States)

Third, preliminary steps have been taken to lay the groundwork for active international co-operation under the United Nations on specific projects in the spirit of the principles I have just reviewed.

The World Meteorological Organization is asked to present to the July meeting of the Economic and Social Council and to the seventeenth session of the General Assembly, organizational and financial arrangements to develop, on an international basis, a world-wide weather research and service programme framed in the light of the great contributions that can be made to such a programme by a system of meteorological satellites.

Similarly, the International Telecommunications Union is asked to recommend steps to prepare the way for the establishment of a satellite system of world communications on a global and non-discriminatory basis. In addition, the Special Fund and the United Nations Technical Assistance Board are asked to give sympathetic consideration to requests by Member States for assistance in developing communications systems so that all members can be in a position to participate in and benefit from a communication satellite system.

Finally, the Secretariat is asked to and already has established a central registry for all man-made objects in orbit. The United States has already complied with the request in General Assembly resolution 1721 (XVI) that launching States submit information for the registry, and has already registered, as of 15 February, the no less than seventy-two United States space vehicles and associated objects that were then in sustained orbit or space transit. This initiates a comprehensive space vehicle registry, available to all interested nations and international organizations to the end that human uses of outer space may be ordered and available to all peoples.

Thus, this Committee, guided by agreed principles, starts its deliberations in the knowledge that the United Nations and its agencies have already made a modest start on projects and activities which show promise of real potential significance.

Fourth, international co-operation in space projects is already expanding rapidly. While working toward global co-operation under the United Nations, the United States has been consistently following a policy of partnership with other nations in planning and executing peaceful space experiments.

(Mr. Plimpton, United States)

Thus, we have entered into a dozen closely integrated co-operative efforts with other countries employing small sounding rockets for scientific investigations of the upper atmosphere. Such programmes enable the world scientific community to obtain meteorological and other atmospheric data of far greater value than that which we alone could provide in the United States. The programme will have made it possible to probe directly into the rare phenomena of the far northern skies in Scandinavia, to observe electromagnetic radiations in southern hemisphere skies, to co-ordinate launchings in the eastern and western hemispheres to permit comparison of their results, and to fly in one rocket nose cone scientific instruments designed by and in different nations with the data open to the entire world scientific community. We have plans for even broader co-operation, involving simultaneous scientific launchings over an extended period of time by many countries.

Within a matter of weeks now, the United States will attempt to place in orbit the first international satellite, a satellite instrumented by scientists of the United Kingdom, but launched by our National Aeronautics and Space Administration in the United States. Before many months, in a similar co-operative effort, we will be launching in this country a second international satellite prepared entirely in Canada. Additional co-operative satellites are under consideration with other nations.

In the fields of immediate practical interest to mankind -- communications and meteorology -- the United States has already taken major strides towards establishing a broad international framework in which to pursue benefits for all.

The intercontinental testing of experimental United States communication satellites to take place later this year will be accomplished through the participation of major ground facilities provided by a number of countries in Europe and Latin America. An international ground station committee, composed of representatives from all the countries involved in these first tests, is already meeting regularly to determine such questions as frequency selection and other vital elements of experiments which lie just ahead of us. In fact, it is possible that this autumn there may be, on an experimental basis, a direct relay of a television broadcast to Europe of some five minutes of the General Assembly's debate. Let us hope that the particular five minutes will be carefully chosen.

(Mr. Plimpton, United States)

The United States has, in advance of each launching of its meteorological satellites, invited nations of the world to co-ordinate weather observations of their own with data obtained through simultaneous passes of the satellites above their skies. This co-operative international effort, in which some thirty nations have so far participated, was brought to focus last year in an international meteorological satellite workshop in this country to which over 100 nations were invited to study the techniques for operational use of satellite weather data against the day when such data may be directly available to all.

In the operation of our own global tracking and data acquisition network, we have welcomed the participation of scientific and technical personnel in the host countries, with the result that more than half of the United States National Aeronautics and Space Administration stations abroad are operated wholly or in part by technicians of the host countries. A technical training programme operated by that Administration contributes to this direct participation.

We have recognized that training was a prerequisite in many cases to the fruitful collaboration of scientists in these common efforts. Accordingly, the United States National Aeronautics and Space Administration has provided specialized training for foreign scientists preparing for joint programmes, and more recently has announced the availability of fellowships for as many as 100 foreign graduate students a year who may study in United States university laboratories currently engaged upon space projects with NASA.

(Mr. Plimpton, United States)

There is thus already abundant indication of the value of the international linking of hands in the common interest. We do not cite our own United States efforts along these lines as more than an indication of the true promise and larger benefits of co-operation in space activities which will come if all of the interested nations enter into broader association, with the guidance and assistance of this Committee.

A fifth development since the outer space resolution was approved at the last Assembly, is that the United States successfully launched a manned space vehicle into orbit three times around the earth. As the United States representative, I naturally take pride in recalling this event. But I much prefer to think that the flight of Colonel Glenn, and of the Soviet astronauts Gagarin and Titov, will come to symbolize not the narrow pride of earthly rivalries, but the liberation of mankind from its earthbound "heritage of thought about the affairs of this single planet".

It is up to us to ensure that the freedom of space first enjoyed by those intrepid explorers will remain unchallenged for all who follow them.

In any case, I believe that the opportunity for many millions of people to share fully, freely and openly in the excitement of Colonel Glenn's flight brought home with high drama the fact that the space age is here. I believe there is pulsing through all of us a new and widespread sense of adventure -- a feeling of keen and sharp anticipation that we are on the threshold of a new age. And this should serve as a lasting stimulus to the work of this Committee.

Finally, since the General Assembly acted on this matter last year, there is a hopeful prospect of collaboration between my country and the Soviet Union in outer space projects.

For many years the United States has been calling for a programme of outer space co-operation. In his first State of the Union Message on 30 January 1961, President Kennedy declared:

(Mr. Plimpton, United States)

"I now invite all nations -- including the Soviet Union -- to join with us in developing a weather prediction programme, in a communications satellite programme, and in preparation for probing the distant planets of Mars and Venus, probes which may some day unlock the deepest secrets of the universe".

This proposal was repeated in the President's speech to the General Assembly on 25 September. We were gratified, therefore, when Chairman Khrushchev, in congratulating the American people on the successful flight of Colonel Glenn, also cited the advantages of a pooling of effort in outer space.

On 7 March, the President wrote to Chairman Khrushchev -- and we are asking that the full text of this letter be circulated as a Committee document -- proposing United States-Soviet collaboration on the following specific and important space projects:

First, the President suggested the joint establishment of an early operational weather satellite system designed to provide global weather data for prompt use by any nation. He proposed that the United States and the USSR each launch a satellite to photograph cloud cover and provide other agreed meteorological services for all nations. These two satellites could be placed so as to provide coverage of all areas of the earth's surface. The world-wide data which would thus be garnered would be of unprecedented value and would be made available throughout the world through normal international meteorological channels. This would be an important step toward implementing the weather research and study programmes now being formulated by the World Meteorological Organization in response to the outer space resolution adopted by the General Assembly in December.

Second, President Kennedy proposed that each of our countries establish and operate a radio tracking station to provide tracking services to the other, using equipment which the other country would provide. We believe that both countries would derive much valuable experience from such a joint programme, not only valuable scientific experience but valuable human experience as to the advantages of open co-operation in each other's country.

(Mr. Plimpton, United States)

Third, in another proposal President Kennedy suggested that the United States and the USSR co-operate in mapping the earth's magnetic field in space. Each country would launch a satellite in an agreed different orbit and would make available the resulting scientific data throughout the entire world scientific community.

Fourth, President Kennedy suggested that the USSR join the United States in a co-operative effort in space communications. We are happy to note that a number of countries are already constructing equipment suitable for participation in such an effort. If technological representatives can get together soon to discuss this complex question, an important first step will have been taken to meet the objective, contained in the last General Assembly resolution, that communication by means of satellites should be available to all the nations of the world as soon as practicable on a global and non-discriminatory basis.

Fifth, President Kennedy proposed that there be a pooling of efforts and exchange of information in the field of space medicine. This is an area where there are tremendous opportunities for research, in which scientists from many countries can co-operate, for the problems of human health know no international boundaries. Not only would co-operation in medical research in this area help ensure man's survival in space and his safe return; it might well open up new vistas as to the ultimate nature of the human body and its behaviour.

Sixth, beyond these specific proposals for immediate collaboration, the President indicated his willingness to discuss broader co-operation in still more challenging projects, including unmanned exploration of the lunar surface and the mutual definition of steps to be taken for an exhaustive scientific investigation of Mars and Venus, possibly by man himself.

I want to emphasize that in this correspondence the President suggested no condition or limitation, and that we have made clear that we are open to any specific suggestions the Soviet Union may make.

(Mr. Plimpton, United States)

We now await Chairman Khrushchev's response to these proposals. If we are, indeed, on the verge of a break-through towards real space co-operation between our two countries -- as we emphatically hope is the case -- it would be a most favourable omen for the Committee's work here, and indeed, for peace everywhere.

So, our deliberations begin in an atmosphere of high expectation, and with enough solid progress in the recent past to inspire my delegation with the hope that we shall succeed in rising above the mental inhibitions of our earth-bound "heritage of thought", and that we shall lift our minds and sights up to heights worthy of the spatial immensities with which we are dealing.

The space age is here -- that is a fact, and there are astronauts to prove it. International co-operation in outer space, although not yet wide enough, is a fact. And the United Nations is back to work on the subject of outer space -- committed to the principles of co-operative effort for the good of all mankind, in an effort carried out in accord with the Charter of our Organization.

Based on these facts, and in the light of the high principles which the past General Assembly resolution so eloquently lays down, I should now like to suggest various matters which the United States believes this Committee could profitably consider and act upon in our common endeavour to further international co-operation in the peaceful use of outer space in the fateful years that are ahead of us.

These matters include the exchange of information and knowledge; joint research; co-operative development of space projects; and the extension of the rule of law in outer space.

We believe that this Committee has an unparalleled opportunity to stimulate the exchange of both scientific and technical information. We already have made a beginning with the registration of objects sent into outer space. Beyond this, the Committee might consider ways to encourage the formation of national space committees which would help Member nations to participate more effectively in international space programmes. In order to form a comprehensive picture of the nature of national space efforts and international space co-operation, it might be useful for the Committee to request reports from nations and national groupings, such as the European Space Research Organization.

(Mr. Plimpton, United States)

We also believe it would be helpful and practicable to have the Secretariat prepare informational material regarding measures which States might take to increase their ability to participate in international space endeavours. Such materials might include information about: existing national training programmes and facilities; requirements for sounding rockets and the necessary facilities for launching such rockets; and the minimum equipment required for telemetry operations.

With the participation of representatives of the Committee on Space Research, COSPAR, the World Meteorological Organization, WMO, and the International Telecommunication Union, ITU, it might be useful for the Committee to examine the operation of existing scientific and technical data centres, translation services, and communications facilities for the dissemination and use of scientific information received from space activities.

We hope the relationship between this Committee and such organizations will be close, effective and fruitful. This Committee can play a useful role in encouraging these organizations to move ahead as rapidly as possible in carrying out the General Assembly resolution. The Committee should also work closely with UNESCO, as the scientific and educational agency of the United Nations system, so that the maximum benefits may be derived from its assistance and support.

It is apparent from what I have just said that the fullest kind of exchange of information is needed in all phases of space research. But if this research itself can be done on a common or co-operative basis, our progress will be speeded, the cost will be reduced, and the areas of mutual interest will be expanded.

The offers made by President Kennedy to Chairman Khrushchev for joint research endeavour were not intended to exclude other co-operative projects in this field or the participation of other nations in them. On the contrary, they were intended to get things started and open the way for co-operative research efforts on a broader international scale. For example, the Committee might explore the desirability of establishing one or more international

(Mr. Plimpton, United States)

scientific laboratories, where scientists from all nations could join together on space research related projects, combining their knowledge and creative talents in the search for answers to some of the countless mysteries that still lie unresolved. We have in mind such questions as the human aspects of space flight -- medical, biological, ecological, psychological, and other matters relating to human activity and survival in space.

We believe the Committee might wish to consider requesting COSPAR and the International Astronomical Union to study the desirability of organizing a world-wide system of ground-based observatories to gain the new information about the planets which will be needed for future manned exploration.

I have mentioned United States efforts in the development of meteorological and communications satellites. In order to prepare the way for effective international sharing of the benefits to be derived from the use of such satellites, the General Assembly in its resolution 1721 (XVI) put forward various proposals which it requested the WMO and ITU to examine. The first of these proposals looks towards a world-wide programme of weather research and weather prediction.

The United Nations programme calls upon the World Meteorological Organization, in collaboration with UNESCO and the scientific community, to develop two kinds of proposals. The first is for an international research programme to yield information essential for improved weather prediction and perhaps eventually weather control. The second is for an international weather service programme -- a global network of regional weather stations to receive, process, and transmit meteorological information from orbiting weather satellites as well as from earth-based instruments.

The cost of the world-wide weather programme is small compared to its potential benefits. The challenge to the United Nations is to develop a programme which will encourage the necessary co-operation among nations in research, in the training of weather experts, in construction of weather stations, in the tracking of weather satellites, and in the exchange of weather information.

(Mr. Plimpton, United States)

With respect to communications, the General Assembly looks towards the establishment of a global system of communications satellites. Space technology has opened up vast possibilities for international communications according to many current estimates, it should be technically possible by the end of this decade to have in operation a global system of telephone, radio and television communication. The cost of such a system will be great, but its benefits will be enormous.

(Mr. Plimpton, United States)

With the aid of satellites, telephone communication between continents will become immeasurably easier. A single communications satellite can offer twenty times the number of telephone channels available in our existing undersea cables. At the same time, a satellite system could make possible global radio and global television. An audience of hundreds of millions of people could be listening to or watching the same programme in many parts of the world.

This fundamental breakthrough in communications could affect the lives of people everywhere. It could forge new bonds of mutual knowledge and understanding between nations. It could offer a powerful tool to improve literacy and education in developing nations. It would enable leaders of nations to talk face to face on a convenient and reliable basis.

The satellite system likely to be in use within this decade will be for point-to-point relay between central installations in different countries, not for direct broadcast into people's homes. This means that the benefits of space communication can be made available to all peoples only through political as well as technical co-operation. It may prove easier to secure co-operation in the technical area than in the political, but our efforts must go forward in both areas simultaneously.

The measures proposed in both meteorology and satellite communications will be of direct importance to all the countries of the world, and the United States hopes that the WMO and ITU will give them urgent and careful attention. This Committee can expect reports from WMO and ITU at a reasonably early date, and at that time we will all have an opportunity to review their work and to provide these organizations with appropriate suggestions.

In the meantime, as the ITU moves ahead with consideration of matters related to satellite communications, we in the United States are laying the basis for co-operative effort in this field. There has recently been presented to our Congress legislation to establish a United States communications satellite corporation. The purpose of this corporation would be to expedite the development of satellite communications so that a global system can be operational as soon as practicable.

(Mr. Plimpton, United States)

I want to make it clear that this corporation is intended to be the United States participant in a global system -- a truly international arrangement with broad ownership and broad participation. That the satellite communications system would be international is dictated by a number of common-sense considerations. The satellites will be useful primarily for communicating between countries, and much of the traffic will be between other countries, not involving the United States at all.

In view of the importance of communications to all States, many other countries will wish to have a voice in the operation and management of the system and will be prepared to contribute to the cost of the system. For our part, we welcome this interest in co-operation and participation by other countries, both as a sharing of the burden of establishing and maintaining the system and as a demonstration of international co-operation which will have value in itself.

Development of communications and meteorological satellites and various other projects, of course, can be initiated only by those countries with the necessary economic and scientific means. This Committee is not in a position to undertake the kind of major operations which such projects require. Our primary task at this stage is limited to study and to the stimulation of international co-operation in outer space work.

But this is not a passive function. Through its promotion of research, through its studies, through encouragement and assistance to national efforts, and through its authority as a subsidiary organ of the General Assembly, this Committee can expand the sphere of international co-operation. We believe the Committee will want to maintain a continuing interest in these activities and thereby help to assure that the benefits of all space activities will be made available on a non-discriminatory basis to all nations.

We believe it would also be useful for this Committee to request reports from COSPAR on its activities and planning. Furthermore, the Committee might consider the work which COSPAR is doing to identify the type of future space experiments and space explorations which might profitably be undertaken and the sequence and manner in which they should be conducted.

(Mr. Plimpton, United States)

Let me briefly turn now to my final topic: international law and outer space. The United Nations can and should play an important role in developing principles for the guidance of States in connexion with outer space activities. We should proceed in this area with the recognition that the task of the organized international community is to develop principles and standards which are sufficiently realistic and specific to have an impact on international practice and which are not so grandiose or elaborate as to be impractical and therefore ignored.

The practical and specific principles, which were unanimously approved by the Assembly in Part A of General Assembly resolution 1721 (XVI), form the basic foundation of a legal regime for outer space. They represent a forward-looking expression by the Assembly that outer space is indeed the province of all mankind. They are practical in the sense that the enlightened self-interest of all States should lead to compliance with them.

Building on this foundation, we will propose that studies be undertaken on two subjects:

First, State responsibility for space vehicle accidents, and

Second, problems arising from the landing, by reason of distress or mistake, of space vehicles in the territory of other States.

These are the suggestions which my delegation has to offer at this time toward the development of a work programme for this Committee. We look forward with interest to what we are sure will be the stimulating and constructive suggestions and comments of other members.

And now, may I conclude.

Our Committee is on the launching pad and the countdown has begun. As we lift ourselves from our earthbound "heritage of thought", may we free ourselves of the gravitation of national rivalries and suspicions, may we rise into an outer space of new and high and unlimited perspective on the world below us, may we enjoy the pleasant weightlessness of mutual confidence and understanding, and may our orbit reach the apogee of that international co-operation and friendship which alone can ensure the survival, in any space, of the particular planet on which we so precariously live.

The CHAIRMAN: I should like to inform the Committee that the three specialized agencies mentioned in the resolution of the General Assembly, namely, the International Telecommunication Union, the World Meteorological Organization and the United Nations Educational, Scientific and Cultural Organization, have taken part in the work of this Committee already as observers. We welcome them and look forward to their participation in our deliberations. Tomorrow one of them, the Secretary-General of the World Meteorological Organization, has asked to be heard in this Committee.

As I mentioned before, we look forward to the participation of other specialized agencies and organizations concerned with the problems of outer space, but it is up to the Committee to make the relevant decisions.

Our next meeting will take place tomorrow afternoon at three o'clock.

The meeting rose at 4.35 p.m.