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VERBATIM RECORD OF THE 9th MEETING

Chairman: Mr. JAROSZEK (Poland)

later: Mr. da COSTA LOBO (Portugal)
(Vice-President)

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The meeting was called to order at 10.45 a.m.

AGENDA ITEMS 31 AND 32 (continued)

INTERNATIONAL CO-OPERATION IN THE PEACEFUL USES OF OUTER SPACE: REPORT OF THE COMMITTEE ON THE PEACEFUL USES OF OUTER SPACE (A/31/20; A/C.1/31/3)

PREPARATION OF AN INTERNATIONAL CONVENTION ON PRINCIPLES GOVERNING THE USE BY STATES OF ARTIFICIAL EARTH SATELLITES FOR DIRECT TELEVISION BROADCASTING: REPORT OF THE COMMITTEE ON THE PEACEFUL USES OF OUTER SPACE (A/31/20; A/C.1/31/3)

Mr. JANKOWITSCH (Austria): Mr. Chairman, speaking this morning as the representative of Austria, I have some difficulty in complying with rule 110 of the rules of procedure, which makes it mandatory not to extend congratulations to officers of Committees. The pleasure of seeing you in the Chair of this Committee surrounded by such highly qualified officers I think warrants a few words of congratulation and an expression of my satisfaction that you, the representative of a friendly country, should be occupying this important post, and I would therefore ask to be allowed to pledge my loyal co-operation to you, Mr. Chairman, and in the rest of the work of this Committee.

The Committee is once again faced with the task of reviewing the work accomplished by the Committee on the Peaceful Uses of Outer Space and its two subsidiary bodies, of examining the progress achieved and of spelling out the mandate of these various organs.

We are doing so in an awareness of the importance of space research and space applications and of the need for international co-operation, and indeed increased international co-operation, in this field.

What at the outset perhaps appeared to many as the frivolous extravagance of a few countries and nations has become one of the fastest-growing and most fruitful enterprises of mankind. It is now generally recognized that space activities are far from being abstract scientific pursuits but spearhead human progress in many directions. They are in the best exploratory tradition of mankind, giving birth to countless new ideas, inventions and technical innovations, many of which have

(Mr. Jankowitsch, Austria)

made their way into everyday human life. Our capacity to understand the physical conditions of our planet has greatly increased, enabling us to deal effectively with some of the most pressing problems such as the environment and energy.

It may even be that the benefits brought by space science to earth will help us in the future to cope with the very forces of nature which have so far seemed to elude every effort at management.

(Mr. Jankowitsch, Austria)

As was so impressively explained and demonstrated to us the other day by Professor Sagan of Cornell University, the study of other planets is likely to help us to answer essential questions about our own, including such questions as the origin of life, and might assist us furthermore in finding the kind of global solutions which are warranted by the problems affecting our planet.

This year has once again witnessed a number of most spectacular achievements in the exploration of space and the application of space technology to terrestrial issues.

After many months of travelling through space, Viking I and Viking II, launched by the United States, landed robots on the surface of Mars and started to provide us with data on its composition and environment, as well as the promise of possible clues to the many questions relating to the origin and development of our own planet.

Not too long ago, detailed findings of two space craft that reached another planet, Venus, were published. Venus 9 and Venus 10, launched by the Soviet Union, continue to orbit the planet and to send back valuable information. In June this year, the Soviet Union orbited the scientific station Salyut 5, and cosmonauts Valery Bykovsky and Vladimir Aksenov, like so many cosmonauts before, orbited the earth in the space craft Soyuz 22. The Satellite Instructional Television Experiment (SITE) carried out by India successfully transmitted instructional programmes, with the aid of the United States ATS-6 satellite, to a great number of isolated villages throughout India. The Canadian/United States Communications Technology Satellite (CTS) was successfully launched in January this year, carrying the most powerful transmitter yet devised for space applications.

Again this year, the first Indonesian communication satellite, Palapa, was launched.

These are but a few of the outstanding examples of achievements in space exploration during the past year, and we are well aware that further experiments and inventions will follow in the near future. Some of them, such as the development of the Space Shuttle, may well revolutionize space research by substantially reducing the cost of space operations, thus also encouraging greater and wider participation by more nations in these activities.

(Mr. Jankowitsch, Austria)

As new areas of satellite technology are opened, opportunities to assist developed and developing countries alike continue to grow. The applications of space technology in such fields as educational television, advanced weather forecasting and earth-resources surveying are of considerable political as well as economic importance to all nations.

The number of countries around the globe directly benefiting in one way or another from space research and technology and themselves participating in or initiating important space programmes is growing, as is an awareness of the potential benefits for all.

The United Nations, and in particular the Committee on the Peaceful Uses of Outer Space, have, from the very beginning, recognized the importance of international co-operation in this field and become a focal point for such activities. A fundamentally internationalist approach in this area of human activity was fully justified by the need to avoid potential friction and to ensure beneficial development for all. We are gratified that this approach has been maintained, that those engaging in space research continue to share with other nations and that international co-operation is growing. The list of nations that have made substantial commitments to national, regional and international programmes of space co-operation now includes countries in every geographical area of the world.

Austria, for her part, concluded last year an agreement with the European Space Agency concerning its participation in the Spacelab programmes, in addition to a number of bilateral arrangements on co-operation in space research.

The will to avoid confrontation and to operate on the basis of joint agreement is also reflected in the consensus procedure followed by the Outer Space Committee since its inception.

The development of an effective international legal framework for these activities was considered by the United Nations to be of paramount importance, because the new dimension, like others which man penetrated earlier, could not remain a legal vacuum. The United Nations thus became the focal point for the development of space law. The main landmark in the legislative field continues to be the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies. Further

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international agreements dealing with more specific questions followed, and important principles such as that of freedom of outer space for exploration and use and that of non-appropriation and avoidance of positioning weapons of mass destruction in outer space have emerged. Important legislative efforts continue to be made within the framework of the Legal Sub-Committee of the Outer Space Committee under the guidance of its able Chairman, Ambassador Wyzner of Poland. These efforts relate to the draft reaty on the moon, special rules to govern telecommunication via satellites and principles concerning the use of earth resources satellites.

I should like, Mr. Chairman, with your permission, to comment briefly on some of the matters under review by the Legal Sub-Committee.

As regards the draft treaty relating to the moon, a compromise on the comparatively few outstanding differences of opinion seemed close at hand at the Sub-Committee's last session. Although final agreement could not be reached it is the firm belief of my delegation that a solution is possible in the very near future, provided that all interested delegations take a realistic and flexible position.

As far as the other two principal questions before the Legal Sub-Committee are concerned, again issues have been narrowed down considerably. This will leave us with the duty and opportunity to concentrate in the near future on finding a solution to the crucial and difficult questions involved.

(Mr. Jankowitsch, Austria)

It has always been the view of my Government that while the development of legal frameworks can be an important means to ensure the proper use of new forms of technology, solutions sought exclusively or predominantly through such a regulatory legal approach cannot always lead to optimal results. It seems obvious from the facts gathered on the nature and potential of these new technologies that their optimal application for the beneift of all requires a broad approach and calls for large-scale co-operative efforts. While some of the concerns voiced by a number of countries engaged in this part of our work are perfectly understandable and merit serious consideration, we believe that restrictions, especially restrictions of a more rigid legal nature, should be weighed carefully and that we should avoid being carried away by looking merely at one facet of the issue. My Government has always insisted on taking into account all aspects of these activities and on seeking possible solutions at all possible levels. We have thus favoured an interdisciplinary approach which would pay attention to organizational, economic, technical, political and legal aspects and solutions alike. Organizational and technical possibilities and requirements constitute an important prerequisite when considering the kind of legal solutions which emanate from our discussion so far. Furthermore, any legal framework should only be considered an answer to existing legal problems and never be an impediment to the optimal use of available technology. We have also continuously stressed the importance of improved co-ordination of the work of the two Sub-Committees, particularly in the field of remote sensing, since it is our belief that the legal experts could benefit from the findings of the technical and scientific experts and vice versa.

A co-ordinating role of the United Nations itself in this area has been one of the major topics discussed by the Scientific and Technical Sub-Committee when it met this spring under the well proven chairmanship of Ambassador Carver of Australia. Already at this stage the United Nations plays an important role in such areas as training and education, exchange of information and promotion of awareness as well as in current international co-operative programmes. We are pleased to note that the Scientific and Technical Sub-Committee came to the conclusion that there was indeed scope for the United Nations to play a

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co-ordinating role in the field of remote sensing -- even in the current phase of activity -- and that that role might include co-ordination inside and between regions on such points as training and technical assistance and programme orientation of special interest to developing countries. Further possibilities of a future more extensive co-ordinating function of the world Organization will be discussed after the Secretariat has prepared additional reports on the subject. Austria attaches great importance to developments in this area.

If we look at the reports of the Outer Space Committee dealing with the work of the Scientific and Technical Sub-Committee we note that the most substantial part of it is dedicated to the question of remote sensing of the earth from space. Another very important topic continues to be the United Nations Programme on Space Applications, where again this year significant progress was achieved. In spite of the limited funds at the disposal of the Expert on Space Applications, Mr. Murthy has done an excellent job. We share the view that this programme should be extended as regards both its content and its scope and we support those views that have been expressed to the effect that it should receive greater financial support.

A number of countries have organized and served as host this past year for several seminars, training workshops and other courses, particularly in the area of remote sensing, in co-operation with the competent specialized agencies. Fellowships have been offered for training experts in various fields of practical applications of space technology by many countries, including Belgium, India, Italy, the United Kingdom and the United States of America. An Austrian scientific institute has decided to offer, within the framework of the United Nations, two scholarships for students from developing countries in the field of micro-wave propagation. The specifics of this study programme are currently being worked out.

As is well known, Austria attaches particular importance to the application of space technology for the use of solar energy. We are pleased to note that this subject matter, brought to the attention of the Outer Space Committee last year, seems to have aroused considerable interest and that the Committee decided this year to recommend that the Secretary-General request Member States to provide information in this field to the Scientific and Technical Sub-Committee, which, we hope, will give it appropriate consideration.

(Mr. Jankowitsch, Austria)

I might mention in this connexion that the International Energy Agency Working Party on Small Solar Power Systems decided in February this year to charge a group of experts -- headed by my own country -- to define a project for a solar-thermal demonstration plant. A proposal for such a solar power plant was drafted when the expert group met in Vienna in May this year.

Another item to which we attach great importance is the question of the convening of a United Nations Conference on Space Matters. Such a world-wide conference could carry out an evaluation of the progress made and the experiences gained in outer space technology, its application in various fields and especially the making available of its uses for developing countries. It would also offer an opportunity for analysing future requirements and potentials. In view of recent developments in the United Nations, we believe that such a conference could be usefully held after the United Nations Conference on Science and Technology, scheduled for 1979. We believe that this timing would make it possible to take into account results of this major conference pertaining to outer space matters. We are therefore looking forward with particular interest to the study prepared on this subject by the Secretariat.

Turning to the work of the Secretariat and in particular to the work of the Outer Space Affairs Division under the able guidance of Mr. Perek, we would like to express our appreciation for the work it has continued to carry out this year. The increased burden of activity placed upon the Division has led us to request, already last year, that the Secretary-General consider strengthening it by taking the appropriate measures. Many new developments which took place over the past year will put an even greater workload on the Secretariat. Even now the Division is unable, because of lack of available experts, to meet increasing requests for assistance by regional organizations as well as Member States.

Permit me now, on behalf of more than 30 co-sponsors, to introduce the draft resolution on the items before us contained in document A/C.1/31/L.1, which has been circulated to members of this Committee. This draft is the result of consultations among members of the Outer Space Committee and I should like to express the sincere gratitude and appreciation of my delegation to all those who have so patiently and so competently participated in the drafting process and thus contributed substantially to the result which is now before the Committee.

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(Mr. Jankowitsch, Austria)

The preamble expresses some of the basic principles upon which the Outer Space Committee bases its work: the common interest of mankind in this field, the importance of international co-operation and the development of the rule of law.

The last preambular paragraph draws our attention to the fact that the most recent international agreement elaborated in the frameowrk of the United Nations dealing with space matters, the Convention on Registration of Objects launched into Outer Space, adopted by the General Assembly on 12 November 1974, has now entered into force.

(Mr. Jankowitsch, Austria)

Operative paragraphs 3 and 4 deal with the work of the Legal Sub-Committee and emphasize, in particular, the progress achieved this year in the areas of direct television broadcasting and remote sensing. Indeed, progress in drafting principles governing the use by States of artificial earth satellites for direct television broadcasting has encouraged us to recommend that the Legal Sub-Committee should consider completing the elaboration of such principles at its next session.

Paragraphs 5, 6, 8 and 9 relate to the work of the Scientific and Technical Sub-Committee. Paragraph 7 deals more specifically with the question of a co-ordinating role for the United Nations in the field of remote sensing. Paragraphs 10, 11 and 12 reflect some of the major points in connexion with the practical applications of space technology. In paragraph 13, finally, we reiterate the request made last year that the Secretary-General should consider strengthening the Outer Space Affairs Division.

In commending this draft to the Committee, it is our hope that, as in previous years, it will receive unanimous support.

Mr. Chairman, in conclusion, permit me to make a few remarks and proposals concerning the venue of the session of the Committee on the Peaceful Uses of Outer Space to be held next year. As you are aware, the Committee, at its last session, proposed that the twentieth session should take place from 13 to 24 June 1977 in New York. In the meantime, the fifth session of the Third United Nations Conference on the Law of the Sea has met and it has been decided to reconvene the Conference in New York in May/June 1977. It is more than likely that this will cause problems for the twentieth session of the Outer Space Committee, and in this connexion I should like to recall that the thirteenth session of the Scientific and Technical Sub-Committee this spring had to be held outside New York, precisely because of the same kind of clash with the session of the Conference on the Law of the Sea.

In view of these considerations, the Austrian Government has decided to invite the Committee on the Peaceful Uses of Outer Space to hold its twentieth session from 13 to 24 June 1977 in Vienna. This invitation is also motivated by the great importance my Government has always attached and continues to attach to the work of this Committee; it is a sign of our appreciation of its work. In

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submitting this invitation for consideration by your Committee, we hope that it will receive a favourable response.

The CHAIRMAN: I thank the representative of Austria for introducing the draft resolution. I should also like to express to him my thanks for his kind reference to the friendly relations between our two countries, as well as his kind words addressed to the officers of the Committee and to me personally. I especially value the expressions of his readiness to co-operate fully with the Bureau of the Committee. I have already received such co-operation from him and should like to thank him for it.

I note his invitation to the Committee on the Peaceful Uses of Outer Space to hold its session of next year in Vienna, and I hope that it will receive due and favourable consideration by this Committee.

I was requested to announce before calling on the next speaker that the following countries have become co-sponsors of the resolution A/C.1/31/L.1 just introduced by the representative of Austria -- namely, Denmark, Ireland, Luxembourg and the Netherlands.

Mr. HARRY (Australia): Mr. Chairman, The Australian delegation looks forward to another fruitful session under your distinguished leadership and we assure you and the Bureau of our fullest co-operation.

When we meet each year in this forum, we have the opportunity to review the significant advances made in space technology in the preceding year. Each year there seem to be new breathtaking developments to comprehend and marvel at. In the last 12 months no doubt the Viking mission to Mars attracted the most publicity. It is an achievement which holds the greatest potential for broadening the horizons of man's knowledge about his own world.

We were very grateful for the insights into the achievement and significance of the Viking programme which Professor Sagan gave us in his informative presentation on 18 October, for which we thank our United States colleagues. Professor Sagan gave us a reminder, among other things, that there are areas in space research, such as the question of back contamination, which demonstrate

(Mr. Harry, Australia)

the need for international co-operation in the interests of mankind, and he pointed out that there are other fields such as the monitoring of radio emissions from space to which we have not yet addressed ourselves.

But in another sense, the Indian Satellite Instructional Television Experiment was equally as exciting as the Viking mission. In that project, space technology was used to demonstrate the feasibility of bringing knowledge man already has about himself to remote and underprivileged areas.

But the rapid rate of technological advance in this field and the understandable eagerness with which we all want to see it applied for the benefit of mankind should serve as warnings to us of the need for the speedy formulation of agreed international frameworks within which these activities can be conducted. In one or two respects, the implementation of space technology has already established realities which limit the full range of options open to us.

We can only exploit fully the possibilities for comprehensive international co-operation which exist as a consequence of the embryonic state of the peaceful application of space technology if we approach the task of negotiating international régimes covering these applications with an attitude of flexibility and a full awareness of the nature of the technology.

Before commenting on one or two aspects of the work of the Committee on the Peaceful Uses of Outer Space, I should like to make a few remarks about Australian activity in the outer space field.

Australia has continued to work actively in remote sensing programmes through its participation in the Landsat programmes of the United States National Aeronautics and Space Administration. Research into the uses of remote sensing data is being carried on in Australia in the following fields -- the suitability of the use of such data for mapping accurately crop areas and land use systems; studies of the applicability of a Landsat analysis system to urban and regional planning; calibration of infra-red data to establish cloud-top temperatures; and the feasibility of using Landsat imagery in a broad ecological survey of Australia. The last-mentioned project is expected to take three to five years to complete and would be the first ecological survey of the total Australian continent. The survey would be an invaluable tool in land use planning for development and conservation.

(Mr. Harry, Australia)

Remote sensing data is being utilized to study land use and forestry patterns, for mapping and meteorological analysis, and my Government is currently investigating the potential demand in Australia for satellite remote sensing data for other purposes and is ascertaining the requirements for data acquisition, storage and processing facilities.

Australia is also involved in a number of co-operative ventures with other countries. We have agreed to establish and operate a Turn-Around Ranging Station for the Geostationary Meteorological Satellite to be launched by Japan in the middle of next year. This satellite will be one of five which will give a complete view of the world's tropical and temperate zones as part of the World Meteorological Organization's world weather watch programme. Australia has bilateral scientific and technical co-operation agreements also with the United States, India and the USSR and within the framework of those agreements Australia has been engaged in a number of co-operative programmes and exchanges.

I must turn now to the work of the Committee. It has been a productive year for the Legal Sub-Committee. My delegation was heartened by the nature of the consultations held at the fifteenth session this year on the Moon Treaty. Finalization of a treaty now seems dependent upon resolution of two outstanding issues -- the scope of the Treaty and the status of the natural resources of the moon. We recognize that great matters of principle are involved in the latter question and hope that we shall see the Moon Treaty finalized next year. The Australia delegation is ready to support any constructive proposal giving due weight to the matters of principle involved.

If I may digress for a moment, I am reminded of the hypothesis presented to a seminar this week about the origins of the Giordano-Bruno crater, light rays from which have recently been photographed from lunar orbit. The hypothesis suggests that the formation of this crater was witnessed by five moon-gazing monks in England on the Sunday before the feast of St John the Baptist in the year 1178. While the hypothesis remains subject to discussion, it suggests to me that we should not restrict the sources of our information only to the results of highly advanced technology, but note that we might in fact find collateral for certain discoveries in the writings of early pioneers in the adventure of human scientific curiosity.

(Mr. Harry, Australia)

The Legal Sub-Committee has now formulated nine draft principles governing the use by States by artificial satellites for direct broadcasting. My delegation commends this progress; but without wishing to detract from it, I should like to comment that we have still to tackle what are probably the most fundamental, and therefore thorniest, issues -- consent and participation, programme content, and unlawful and inadmissible broadcasts. At the fifteenth session, the Australian delegation expressed its sympathy for the Canadian/Swedish compromise proposals covering these issues. And it does seem to us that only on the basis of such compromise is there prospect for progress on these questions. I note that many of the technical questions underlying these issues are to be addressed at the World Administrative Radio Conference to be organized by the International Telecommunication Union in January. It is my delegation's hope that the deliberations of that conference may clarify many technical aspects.

The Legal Sub-Committee has identified five draft principles and three new common elements in its work on the legal implications of the remote sensing of the planet earth from space. On this subject, perhaps more than in others, my delegation believes that unless members of the Committee maintain a degree of flexibility in their positions and make a major effort to keep abreast of the "state of the art" in this rapidly developing area, constantly adjusting their positions against appreciations of technical developments, it may be years before agreed principles are evolved. By then it may be too late. We must reach agreement in 1977.

In respect of the work to which the Scientific and Technical Sub-Committee has addressed itself this year, I should like to restrict my comments to the specific subject of international co-operation with respect to the ground segment of remote sensing by satellites. The view of my delegation is that great prospects for international co-operation in this area exist if we set ourselves the realistic goals of building on national and regional activities in the field. Had planning of the ground segment been done on a global basis with proposals to fund it internationally, before ground segment facilities were established, attempts to establish a global basis for planning might have been economic. However, this did not occur and we now consider this a dead issue.

(Mr. Harry, Australia)

My delegation's opinion is that it would be productive to approach the question of regional co-operation in the ground segment on two levels. On the first, there should be co-operation between countries within the coverage of a specific ground facility and secondly, there should be co-operation between countries in an economic region which might be covered by several ground facilities. On the basis of our own experience we feel that regional co-operation between countries covered by a single ground facility should emphasize the sharing of data analysis facilities and experience.

The Australian delegation has the pleasure as in previous years of co-sponsoring again the omnibus resolution which has just been presented by my distinguished neighbour and colleague from Austria. This resolution reflects the progress that has been made by the Committee on the Peaceful Uses of Outer Space and sets out the areas of priority which the Committee and its sub-committees may find it productive to focus upon next year.

We have only just received the report in document A/C.1/31/L.2 on the financial implications so that I cannot comment on that, but I do note, Mr. Chairman, that the amounts involved of $100,000 are modest by comparison with the astronomical figures of the costs of some of the programmes like the Viking mission.

Finally, before closing, I should like to pay a tribute to Ambassador Jankowitsch for the contribution that he has made. On his suggestion that the Committee might meet next year in Vienna I will simply say that if the exigencies of conference organization should make it necessary for the Committee to meet in Vienna my own delegation would be delighted.

The CHAIRMAN: I thank the representative of Australia for his assurance of co-operation with the officers of the Committee.

Mr. NYAMDO (Mongolia) (interpretation from Russian): Distinguished Comrade Chairman, since this is the first time our delegation has spoken in the Committee at this session of the General Assembly, permit me to congratulate you warmly on your unanimous selection to the important post of Chairman of

(Mr. Nyamdo, Mongolia)

this important Committee. I take particular pleasure in welcoming you as the representative of fraternal Poland -- the homeland of Copernicus, the great astronomer -- a country with which we have the closest ties of friendship and co-operation. I would also like to congratulate the other members of the Bureau of our Committee on their election to their important posts.

(Mr. Nyamdo, Mongolia)

The question of international co-operation in the use of outer space for peaceful purposes, by its character and scope, is unquestionably a matter of global significance. As a result of the rapid rate of development of contemporary science and technology countries of our planet have begun to engage in exploration and the use of outer space for peaceful purposes. Accordingly, outer space has already become a new arena for international co-operation. In the view of our delegation this co-operation can develop only in circumstances of détente. On the other hand, we view international co-operation in the exploration and use of outer space as an important contribution to the strengthening of international peace and security. We believe that it is precisely this approach which best serves the lofty goals and principles of our Organization and this is the fundamental principle which guides our delegation in its approach to questions relating to international co-operation in the use of outer space.

The period since the thirtieth session of the General Assembly has been marked by a great number of noteworthy events which have made a valuable contribution to the further development of space science and technology. Firstly, our delegation would like to express its particular satisfaction at the outstanding scientific achievements of the Soviet Union in the exploration and use of outer space for peaceful purposes. In this regard I would like to say that yesterday we were honoured to welcome to our Committee the Soviet astronauts Aleksey Leonov and Valery Basov, who are devoting their energies for the benefit of mankind. We would also like to commend the scientific work carried out by the United States in the same area.

Our country favours the development of international co-operation in the use of outer space for peaceful purposes. Our primary participation is in programmes developed within the framework of Intercosmos. Developing co-operation with socialist countries in the field of the use of outer space, the Mongolian People's Republic devotes particular attention to space, physics, meteorology and space communications. The economy of my country has already begun to derive benefits from this co-operation.

We regard as an important event in co-operation among socialist countries the conclusion of an agreement on co-operation in the exploration and use of outer space for peaceful purposes, signed this June. Under the provisions of this

(Mr. Nyamdo, Mongolia)

agreement States parties undertake to do everything in their power to promote the further development of co-operation in the use of outer space for peaceful purposes. Thus, this agreement is the juridical basis for further co-operation among socialist countries in this field. On 14 September this year in Moscow, consultations were held on the possibility of citizens of States parties to Intercosmos taking part in flights on board Soviet space ships and space stations. According to the decision taken in the course of these consultations, over the next five years citizens of my country will take part in space flights along with astronauts from other countries which take part in the Intercosmos programme. The flight of the first Mongolian astronaut will undoubtedly be a major event in the life of our people and in the development of space science in my country.

Permit me now to say a few words about the report of the outer space Committee. First, the delegation of the Mongolian People's Republic would like to express its gratitude to Ambassador Jankowitsch for his very careful presentation of the Committee's report. In the view of our delegation, it can be concluded that the work of the Committee on the peaceful uses of outer space has been useful and successful.

Our delegation notes with satisfaction that the Legal Sub-Committee at its fifteenth session made significant progress in formulating nine principles which would serve to guide States in direct television broadcasting activities by means of satellites, and also five principles relating to possible legal implications of the remote sensing of earth from space.

As members of the Committee on the Peaceful Uses of Outer Space are aware, at the last session of the Legal Sub-Committee the Mongolian People's Republic submitted a working paper on the question of the legal implications of remote sounding of earth from space. The idea underlying this document was that States taking part in the work of remote sensing should respect the principle of full and permanent sovereignty of all States and peoples over their natural resources and also their inalienable right to dispose of their own natural resources and information pertaining to those resources. We are firmly convinced that this principle will become one of the major principles of remote sensing of the earth from space.

(Mr. Nyamdo, Mongolia)

The Scientific and Technical Sub-Committee has continued to make serious efforts to create the necessary basis for the consideration and preparation of legal principles governing the activities of States in the realm of remote sensing. My delegation, unfortunately, has to note that no progress has been made in concluding work on the treaty relating to the moon. With regard to the question of the natural resources of the moon, our position is that exploration and use of the moon is the common heritage of the whole of mankind and that all States should have access to the benefits flowing from the exploitation of the moon's natural resources.

The question of direct television broadcasting by means of artificial earth satellites is of great significance for the strengthening of mutual understanding among nations. We are gratified at the fact that work has been concluded on the first reading of the draft principles governing activities in the field of direct television broadcasting. Our delegation would like to stress one important principle, whereby States are obliged to give advance notice to, and obtain prior consent from, States to which such broadcasting is directed. In conclusion, my delegation would like to wish the Committee every success in performing its tasks.

The CHAIRMAN: I very much appreciate the very friendly words of the representative of Mongolia about my country. I would like to thank him also for his remarks addressed to the Chairman and other officers of the Committee.

Mr. ROMULO (Philippines) My delegation is pleased to see you, Mr. Chairman, presiding over the First Committee during this session of the General Assembly. Your work in this Committee over several years will guarantee the successful course of our work. I have known you for many years and have admired you for your work in the United Nations.

It was in 1972, during the 27th session of the General Assembly, that I last spoke before this Committee on the item of outer space, and I am very glad to be able to do so again this year, particularly because we can now note that there has been substantial progress on several of the questions before us.

There are, it is quite clear, still major problems confronting the Committee on the Peaceful Uses of Outer Space. One might say that all the problems concerning the treaty on the moon and the draft principles for direct television broadcasting have been solved; all except the important problems.

The Outer Space Committee, perhaps more than any other body connected with the work of the United Nations has the opportunity, because of the nature of its concerns and the high perspective which they open up, to view the tasks before it with a certain detachment and objectivity. Within this context, it should be more possible than within other settings, where the pressures and difficulties are more acute, to place the human interest above lesser and more partisan interests.

In this connexion I wish to pay tribute to Ambassador Jankowitsch, Chairman of the Committee on the Peaceful Uses of Outer Space, for his work in and his leadership of that Committee.

Thus, for instance, with regard to our draft treaty on the moon and similar concerns, a basic principle can be stated: namely, that the global human interest takes precedence over other considerations. As the world continues to develop its capacities to carry out activities in relation to outer space and to other bodies in the solar system, it is basic and crucial that differences which may still afflict us here on earth should not be carried as contaminants to other spheres. Fortunately, an ever higher degree of co-operation is emerging in connexion with space exploration, not only in the sharing of scientific data, but also in joint undertakings and in the design of compatible hardware for space dockings and the like.

(Mr. Romulo, Philippines)

When we move beyond the phase of exploration to development and exploitation of resources from beyond the earth, or to the scientific colonization of space or of the moon and other bodies, not only co-operation, but co-ordinated and integrated planning and participation become all-important. We are most fortunate in this respect that our world Organization exists, and that it provides a venue for the elaboration of machinery for joint, collaborative undertakings in which the membership will play its part. Conflicts over new colonies and bases on the stars would undoubtedly throw us back to a new Middle Ages, and we would be forced to contemplate whether indeed the world had learned from its historic follies.

In the view of my Government, therefore, there is no alternative to the extension of the "common heritage" concept to any development of resources of the moon or other extra-terrestrial bodies. Furthermore, this concept, already well-subscribed to in the context of a régime for the seas and sea-bed, leads directly to the development of an international régime under United Nations auspices to guide in an orderly and equitable manner the activities and exploitation of outer space bodies such as the moon. Since outer space is quite beyond national jurisdiction by its very nature, it is an exercise in absurdity to define human activity in this sphere in less than collective international terms.

Furthermore, the undeveloped nature of earth's involvement in outer space activity means that we have an unprecedented opportunity to pioneer arrangements based on global rather than on partial or partisan considerations. New techniques of international organization, planning and decision-taking can be pioneered in this realm, which is not yet the scene of divisive and conflicting interests. Such techniques may then well find their application in other contemporary issues.

With respect to the principles on the use of direct broadcast satellites, here again only the most important issues remain unsolved -- those relating to freedom of information and sovereignty of States. My Government remains convinced that the Canadian-Swedish paper of 1973 contains reasonable proposals which can provide the basis of a fair and co-operative compromise between two cardinal principles which, each in its own place, is of the utmost importance.

(Mr. Romulo, Philippines)

Regarding the legal implications of the earth resources survey by remote sensing satellites, we are gratified that the text of five draft principles relating to the objectives of remote sensing, to the applicability of international law, to international co-operation and participation, to the protection of natural environment and to the provision of technical assistance, has been completed.

On the other hand, we welcome the emphasis of the Scientific and Technical Sub-Committee in the past year, on the co-ordinating role to be played by the United Nations in the further development of remote sensing activities.

As the work of the Outer Space Committee progresses, I firmly believe that the basic principles of international co-operation, the sovereignty of States, the peaceful uses of all activities in outer space and the benefit to all mankind, are guidelines that must govern the pursuit of its tasks and the discharge of its responsibilities. These very same principles and concepts should apply in the First Committee when we deliberate on the item of outer space.

Mr. Chairman, when I last appeared before the Committee on the present item, I discussed in the main the subject of international action for the mitigation of the harmful effects of storms. The outer Space Committee in its report at that time recommended to bring to the attention of the General Assembly the plan of action prepared by the executive panel of experts on tropical cyclones of the World Meteorological Organization. This plan of action is in response to the General Assembly resolution which recommended to the WMO that it "take, if necessary, appropriate action to mobilize capable scientists, technologists and other pertinent resources from any or all nations towards obtaining basic meteorological data and discovering ways and means to mitigate the harmful effects of these storms and remove or minimize their destructive potentials".

(Mr. Romulo, Philippines)

As a follow-up to the General Assembly resolution, the General Assembly, on the recommendation of the First Committee, adopted on 9 November 1972, a resolution on international action for the mitigation of the harmful effects of storms. For very obvious reasons, it was my delegation that spearheaded the unanimous adoption of that resolution. I need not repeat that the Philippines is in the heart of the typhoon belt in the western Pacific and year in and year out it has constantly been pummelled and battered by typhoons, big and small, at an average of no less than 20 typhoons per year, so that our country has suffered unending havoc and destruction from these natural calamities.

In 1972 and subsequent years, the omnibus resolution on the outer space item has regularly included an operative paragraph reading along the following lines:

> "Requests the World Meteorological Organization to pursue actively the implementation of its tropical cyclone project, continuing and intensifying its other related action programmes, including the World Weather Watch and, especially, the efforts being undertaken towards obtaining basic meteorological data and discovering ways and means to mitigate the harmful effects of tropical storms and to remove or minimize their destructive potential".

We should like to express our thanks to the members of the Committee on the Peaceful Uses of Outer Space for their co-operation and understanding in taking into account the serious concern of countries like the Philippines for the mitigation of the harmful effects of storms, which we sincerely hope can soon be moderated through the further achievements of outer space science and technology.

In the spirit of General Assembly action to date, I wish to renew the appeal to scientists and technologists of all nations to co-operate with WMO in the implementation of its tropical cyclone project. My delegation looks forward to the next report of WMO on the subject, which we hope will be ready for our consideration when we take up the outer space item next year.

I am pleased to note that the outer space omnibus resolution this year also carries the same operative paragraph as in the last four years with regard to the mitigation of the harmful effects of tropical storms or the removal or

(Mr. Romulo, Philippines)

minimization of their destructive potential. My delegation would like to add its name as a co-sponsor of this resolution after that of the list of the original sponsors who are members of the Outer Space Committee.

I should like briefly to describe at this point what we have done so far in the Philippines regarding the mitigation of the harmful effects of storms. From 4 to 10 September this year an international conference on the "Survival of Humankind: The Philippine Experiment" was held in Manila. The conference discussed typhoon moderation and weather modification at some length. Typhoon moderation was viewed by the conference as a viable alternative approach to disaster mitigation in the Philippines.

It was also pointed out that research efforts in cloud physics and typhoon structure should be emphasized, possibly through numerical models. A science exchange programme for greater interaction of scientists was recommended by the conference.

The attention of the conference was drawn to the fact that a Typhoon Moderation Programme for the Philippines has already been drawn up, designed to achieve an operational typhoon moderation capability in 10 years. The Philippine Government may pass upon this programme and determine the optimum pace of implementation in consultation with agencies and persons knowledgeable about the programme. If the programme is found to be satisfactory, the build-up of hardware capability may be pursued and this, it is estimated, will take from 18 to 24 months.

Before concluding this statement on outer space, I should like to congratulate the Union of Soviet Socialist Republics and the United States of America on their amazing feats and achievements in the exploration of outer space. They are to be commended for the technology which has enabled them to explore the far reaches of our planetary system and to obtain scientific and technological information about the moon, Venus, Mars and other planets. Their accomplishments are a tribute to the genius of their people and of the human race itself.

I have every confidence that the achievements in outer space in recent years are but the beginnings of far greater exploits in the future in such areas, exploits which may now seem mere fantasy.

(Mr. Romulo, Philippines)

Before concluding, I have one appeal to make. It is that in this exhilarating and horizon-expanding series of events -- the invasion of space by man -- only collaborative ventures, regulated by the conscience and justified needs of the human race as a whole, focused through our world Organization and universally agreed upon, will be mounted. In this way, our history and our odyssey as a race will find a new confirmation in a unified and constructive approach to our wider freedom.

The CHAIRMAN: I wish to thank the representative of the Philippines for his very kind and generous words addressed to me personally.

Mr. AKIMAN (Turkey): Mr. Chairman, it is a pleasant duty for me to congratulate you warmly, on behalf of my delegation, upon your election as Chairman of this Committee. It is the conviction of my delegation that, under your able guidance, our work will come to a successful conclusion. I should also like to extend the congratulations of my delegation to the other members of the Bureau -- namely, Mr. da Costa Lobo of Portugal, Mr. Boaten of Ghana and Mr. Shrestha of Nepal -- upon their well-deserved election as Vice-Chairman and Rapporteur, respectively.

Moreover, my delegation would like to avail itself of this opportunity to express the appreciation and congratulations of the Turkish Government to those countries whose efforts made 1976 a year marked by impressive achievements and by vivid examples of international co-operation in space applications.

We are living in an era when successive achievements are taking place in the realm of outer space exploration, marked, each year, by new and spectacular events. In our day, lunar fragments are being presented as gifts to individuals. Mankind's unremitting efforts have put distant worlds within our reach.

Therefore, in the view of my delegation, it is high time for the international community to act in a more expeditious way with a view to establishing as comprehensive and equitable a body of space law as possible.

On previous occasions in this Committee, my delegation has been given the opportunity to set forth the views of the Turkish Government on the issues dealt with in the Committee on the Peaceful Uses of Outer Space. I shall not, therefore,

(Mr. Akiman, Turkey)

dwell here at length on the questions before the Outer Space Committee, but shall make a few remarks in connexion with certain specific points covered by the report we are discussing now. However, before doing so, I cannot but offer, on behalf of my delegation, congratulations to the Chairman of the Committee on the Peaceful Uses of Outer Space, Ambassador Jankowitsch of Austria, for his comprehensive and lucid report on the nineteenth session of that Committee. At the same time, I should like to express the appreciation of my delegation of the work of the two Sub-Committees under their respective Chairmen, Ambassador Wyzner of Poland and Professor Carver of Australia.

My Government, which has followed with keen interest the work done on the draft treaty relating to the moon, associates itself with the hope expressed in the report by the Committee on the Peaceful Uses of Outer Space that, at the next session of the Legal Sub-Committee, further efforts will be made to finalize the text of that draft treaty. We are happy to note that the Outer Space Committee has given high priority to the further consideration of this subject. It is the wish of the Turkish delegation that, during its consideration of the basic questions dealt with in the draft treaty relating to the moon, the Sub-Committee will take into account the fundamental principle, in connexion with the natural resources of the moon, that the moon and other celestial bodies are beyond the limits of national jurisdiction and hence are part of the common heritage of mankind.

(Mr. Akiman, Turkey)

As to the question of direct broadcasting by artificial earth satellites, my delegation is happy to note from the report that the Legal Sub-Committee has made considerable progress in the elaboration of principles governing the use by States of artificial earth satellites for direct television broadcasting. Nevertheless, we earnestly hope that, at future sessions of the Sub-Committee, further progress will be made in connexion with three outstanding subjects in this field -- namely, consent and participation, programme content, and unlawful/inadmissible broadcasts, taking fully into account the principle of sovereignty.

Turning now to the question of remote sensing of the earth from space, it goes without saying that this is one of the most important space applications offering most promising possibilities in the improvement of social and economic conditions of mankind. However, in the view of my delegation, practical ways and means of allaying the concern of States regarding their national sovereignty must be carefully sought today, if we are to avoid future disputes resulting from this peaceful application of space technology.

As my delegation stated last year in this Committee, the Turkish Government is in favour of the convening of a United Nations Conference on space applications. Therefore, my delegation earnestly hopes that, if an in-depth study is to be prepared by the United Nations Secretariat on the question of convening a United Nations Conference on space matters, as endorsed by the Outer Space Committee upon the recommendation of the Scientific and Technical Sub-Committee, this will contribute positively to the early realization of the Conference.

Before concluding, I would like to stress the fact that all the efforts to benefit the developing countries from the achievements in the field of outer space will fall short of their aims unless emphasis is placed on education and training. Therefore I would like to express the appreciation of my Government to those Member States who have granted fellowships to developing countries for advanced study and training in areas related to space applications.

The CHAIRMAN: I thank the representative of Turkey for his kind words addressed to the officers of this Committee.

Mr. FARHANG (Afghanistan): Since the time this Committee was established by the General Assembly, great and fascinating developments and progress have been achieved in the field of the application of science and technology for the exploration and use of outer space. These spectacular achievements have demonstrated the immense possibilities available for mankind to use the outer space and the resources of the celestial bodies to enhance and accelerate the welfare of the inhabitants of our planet. The Committee on the Peaceful Uses of Outer Space, under the able and wise chairmanship of Ambassador Jankowitsch and with the collaboration of the Chairmen of its Sub-Committees and Working Groups, have made commendable efforts to discharge the mandate entrusted to them. While the Committee has been successful in achieving significant progress in many important and sensitive fields, a number of important and complicated questions still remain to be examined and finalized. Results so far achieved and imagination and skill applied give us confidence that the remaining contentious matters would be cleared in the near future.

As the distinguished representative of Norway said yesterday, decisions in selecting areas and projects concerning man's activities in outer space in which efforts are concentrated should be carefully considered, having particularly in mind the requirements of the developing countries. To this pertinent observation we would like to add the view that information and data obtained, as a result of these activities, should be available to the developing countries on easier and more favourable terms to enable them to benefit from the exploration and exploitation of outer space and its resources in accordance with their developmental needs and requirements. This, I am sure, would be a positive and significant step in the field of international co-operation.

Explaining my delegation's views on specific subjects, I would like to state that on the question of the preparation of a draft treaty relating to the moon, we welcome the decision of the Legal Sub-Committee to give priority to the question of the legal régime governing the natural resources of the moon. In this connexion, I would like to repeat the insistence of my Government upon the principle that the moon and other celestial bodies are beyond the limits of national jurisdiction and, therefore, their natural resources should be considered as a common heritage of mankind.

(Mr. Farhang, Afghanistan)

As far as the question of remote sensing is concerned we are pleased that the Legal Sub-Committee has been able to complete the texts of five draft principles on the basis of the "common elements" identified last year, that is, the principle related to the objectives or remote sensing, the applicability of international law, international co-operation and participation, the protection of the natural environment and the provision of technical assistance. We hope that the Sub-Committee will soon be able to reach consensus on the remaining points of contention regarding these principles, and achieve further progress in the elaboration of other principles based on the three new "common elements" identified regarding the role of the United Nations and other international organizations in the co-ordination of activities and the provision of technical assistance in this field, provision of information concerning impending natural disasters and the prohibition of the use of data and information to the detriment of other States. On the question of prior consent and the disposal of information to third parties, my delegation believes that the question of consent is an integral part of the right of permanent sovereignty of States over their natural resources and, likewise, the State upon whose territory remote sensing has been conducted, has the right to have access to all information and data accumulated. These principles are applicable in particular, when the current pre-operational experimental phase ends and global operational remote sensing system or systems are established.

On the question of the elaboration of principles governing the use by States of artificial earth satellites for direct television broadcasting, we commend the efforts of the Legal Sub-Committee which resulted in finalizing the texts of the nine principles enumerated in paragraph 22 of the report of the Committee. With regard to the remaining three articles relating to consent and participation, programme content and unlawful broadcasts, my delegation hopes that the Legal Sub-Committee will be able to reconcile the two important principles of sovereignty of States and freedom of information in such a way that while direct television broadcasting by States through artificial earth satellites is promoted, encouraged and expanded, the national cultures and civilizations of different countries and the cultural, social and political aspects of their people's lives are protected through the free but objective and unbiased flow of information. This consideration bears more importance when we take into account the fact that for a long time to come, the possibility of direct television broadcasting through artificial satellites would be limited to the developed countries only.

(Mr. Farhang, Afghanistan)

As the question of the preparation of an international convention on principles governing the use by States of artificial earth satellites for direct television broadcasting is of great importance, particularly in view of the great benefits that the developing countries would acquire from it in such important development fields as education, agriculture and health, my delegation urges the Committee on the Peaceful Uses of Outer Space to expedite its works in this field and submit as soon as possible the draft of the proposed principles to the General Assembly for the speedy conclusion of an international agreement or agreements on this subject.

Mr. PINIES (Spain) (interpretation from Spanish): My delegation wishes to abide strictly by the rules governing the expression of congratulations and for this reason I shall confine myself to expressing my gratification at the unanimous election of Mr. Jaroszek as Chairman of this Committee, Mr. Boaten and Mr. Costa Lobo as Vice-Chairmen and Mr. Shreshta as Rapporteur, officers whose competence guarantees fruitful development for the important work entrusted to us. My delegation pledges its unconditional and resolute collaboration to our officers.

The First Committee has before it once again the items of international co-operation in the peaceful uses of outer space and the preparation of an international convention on principles governing the use by States of artificial satellites for direct television broadcasting. My delegation wishes to affirm once again the importance it attaches to both subjects. Space co-operation, which should be of a universal character, is one of the needs of the new space era in which we live and demands that the international community become seriously aware of its importance.

The danger that arises in this field is that by reason of the abundance and extraordinary nature of the events which mark the beginning of the space era, we may lose sight of the more general scope of the implications derived for the whole of mankind from the use of this new technology. I should like to pay tribute to those countries which have used their technicians and resources to achieve such spectacular feats as the landings on the moon, the exploration of Mars, projects for docking and transshipment in space, the space laboratory and other remarkable

(Mr. Pinies, Spain)

achievements of the United States and the Soviet Union, both individually and jointly, as well as of other countries which have participated in the various programmes. Yesterday we had the honour to hear in this Committee General Leonov, who gave us an opportunity to recall the memorable feat which united in space the Soviet and United States astronauts. However, having placed on record this well-deserved tribute, my delegation wishes also to stress the need for these technological feats of accomplishment to be accompanied by paralleled development of juridical norms to govern the adequate use of such technology for the benefit of mankind and not merely to accentuate and project ad infinitum the difficulties and confrontations besetting mankind on this earth.

Spain has continued to carry out activities in the space field through its own programmes which are co-ordinated by the National Space Research Commission and the National Space Technology Institute which directly operates facilities on our national territory and the sounding rocket launching facility El Arenosillo. The Spanish satellite INTASAT is still in operation and meterological sounding rockets and others carrying useful technological equipment are still being launched. At the international level Spain has continued its co-operation with the European Space Laboratory Programme as well as the AEROSAT and MAROTS programmes, in ionospheric research programmes with useful scientific equipment built in Spain. Work continues on radio astronomy at the Central University of Barcelona and academic courses are given on photogrammetry and photo interpretation in the Polytechnic University of Madrid. Part of these activities is included in the technical information included in the report of the Committee on the Use of Outer Space for Peaceful Purposes (document A/31/20). My delegation has studied this report carefully and is happy to express its gratitude to the Committee and its Chairman, Mr. Jankowitsch, for the seriousness and competence with which this body has been working.

At the same time my delegation cannot but express its astonishment upon reading in the report that 32 countries attended the nineteenth session and that 24 Member States participated in the general debate. This ad hoc Committee, which has become a permanent Committee, is composed of 37 members. This means that 30 Member States did not participate in the general debate and 5 Member States did not even feel it necessary to attend the session.

(Mr. Pinies, Spain)

My country is keenly interested in participating in the activities of that Committee, and other countries, like Colombia and Iraq, have expressed a similar desire in the course of the meetings of this First Committee. Although at this time we may not submit concrete proposals, I am putting the matter up for consideration by this Committee and commend to the attention of the Committee on the Peaceful Uses of Outer Space the desirability of seriously considering its composition and possible alternatives to that theoretical permanent participation by members who in practice do not feel inclined to co-operate, no doubt for very worthy reasons. Nothing would be less desirable and in the long run dangerous than the formation of a limited élite of countries which, on a permanent basis, monopolized direct competence in respect of a matter of such great importance to mankind. If in the near future the initiatives aimed at the convening of a United Nations conference on space matters materialize, my delegation hopes that this problem of the competent bodies to perform administrative or managerial functions in this field will be one of the objectives to be included on the agenda of that world Conference.

In this connexion, my delegation wishes to confirm here, as we already did in our reply to the Secretary-General, that the convening, within the next few years, of a United Nations conference on space activities has the resolute support of the Spanish Government and that in the opinion of our Government, the purposes and objectives of that conference should not be limited to purely technical questions, but should encompass all the problems of different kinds raised by space technology in terms of their legal, political, economic and other repercussions. Since this is a problem that profoundly affects the life of the whole of mankind, the conference should discuss the establishment of broad guidelines for the action of the international community in respect of space matters.

(Mr. Pinies, Spain)

To turn now to some specific aspects of the report before us we note that the draft treaty relating to the moon is still almost as remote as the satellite to which it refers and this despite the very laudable efforts of the committee and the setting up of a working group which vainly endeavoured to achieve a compromise on the more fundamental aspects of the questions such as the legal status of the moon and its natural resources. It is not surprising to come up against such difficulties when we see that something similar occurs in respect of ambits closer to us such as the sea-bed and the resources of the subsoil thereof despite the efforts of an international conference open to all States. But these difficulties should not discourage us nor should they be used as arguments to postpone indefinitely the conference on space matters; quite to the contrary, they should serve as a stimulus to intensify and speed up the necessary awareness by all which could well be the incentive that will make it possible to overcome these difficulties. As for direct broadcasting by satellite, it is encouraging to note that the Legal Sub-Committee should have been able to formulate the nine principles which appear in annex II in the report of the Sub-Committee, and we are happy to note that the fourth principle of that group of nine -- according to which activities in the field of direct television broadcasting through a satellite should be based on, and promote international co-operation.

As regards the remote sensing of the earth, my delegation agrees that the item is of equal interest to the Scientific and Technical Sub-Committee and the Legal Sub-Committee and we take good note of the fact that, in the view of the committee, the evaluations of the pre-operational phase, as well as the descriptions of the possible future operational phase, do not prejudge the consideration by Member States (and by this we understand it to mean Member States of the United Nations) of the establishment of organizational or legal structures. Indeed if, already in our world, privacy is threatened from all sides not only in our private lives but also in our social lives; if we consider that an eye that is watching us from outer space an Argos or "panoptes", as the Greek classics called them, which sees everything even through opaque bodies, to believe that this is a technical problem is no more than an illusion since the legal, political, economic and -- let us not forget -- military implications are far too serious. This is by way of example of the need for greater collective awareness of such difficulties by the appropriate organs of the international community.

(Mr. Pinies, Spain)

In conclusion, my delegation expresses the hope that this First Committee will consider and unanimously adopt, as in past years, the draft resolution on space co-operation introduced today by Ambassador Jankowitsch. And we also hope that some constructive draft to which we would give our support would be submitted, namely, a draft which would help to favour the rapid elaboration of the international convention in governing the use by States of artificial earth satellites for direct television broadcasting.

The CHAIRMAN: I thank the representative of Spain for the congratulations he addressed to the Chairman and other officers of this Committee.

Mr. HUERTA (Chile) (interpretation from Spanish): Thank you, Mr. Chairman. Mr. Chairman, in this first intervention of the Chilean delegation, I am happy to convey to you our congratulations upon your designation to preside over the debates in the First Committee, while wishing you every success in your important functions. As a member of the Committee on the Peaceful Uses of Outer Space since 1974, my delegation has given at all times its resolute co-operation in order to contribute thus to the success of the work entrusted to the Committee. Therefore, although we believe this is the best opportunity offered to States which are not members of the Committee to express their views and ideas on such all-important subjects as the one discussed here, we felt it desirable to reiterate briefly some ideas and views that are of more direct interest to us and which supplement what we stated at the nineteenth session of the United Nations Committee on the Use of Outer Space for Peaceful Purposes in New York and the discussions of the Scientific and Technical and Legal Sub-Committees.

In the very few years that have elapsed of the spatial era, the scientific progress achieved has made it possible to begin the use of outer space for the benefit of mankind in the field of remote sensing, broadcasting, meteorology and many other uses. And, on the other hand, successful progress has been made in the exploration of the universe. What until not too long ago was no more than a remote hope has today become a reality that we all applaud. The launching by the

(Mr. Huerta, Chile)

United States by two unmanned spacecraft to Mars and their landing this year on the surface of that planet is a feat which we regard as prodigious, and for which we congratulate very sincerely all those who one way or another took part in that programme.

The heavy cost of the programme will be offset by the contributions made by that country to the progress of space science and technology. Incognitos which have worried mankind from all time have been resolved and will make it possible to continue through new initiatives our better understanding of the cosmos. We hope that part of this information will soon be made available to the United Nations. This staggering advance in the exploration of outer space compels us in turn to study even more diligently the juridical body of law governing these activities, so that in the future the benefits obtained through these new discoveries may be distributed with equity and justice.

Our delegation congratulates once again the Outer Space Committee for the effort to comply with the legal tasks entrusted to it but we regret that, in respect of some important aspects, we are bogged down and unable to achieve definitive agreements making it possible to conclude the treaties under consideration. In fact we believe that we should delay no further a solemn declaration by the General Assembly proclaiming the natural resources of the moon and other celestial bodies as the common heritage of mankind, as was done in resolution 2749 (XXX) concerning the sea-bed and ocean floor beyond the limits of national jurisdiction.

(Mr. Huerta, Chile)

The future use of the resources of the sea-bed and of outer space is of vital importance for the developing countries and for mankind as a whole, since they will only benefit from their exploitation if international legislation distributes those resources equitably among States. If this is not done, the ideals of international co-operation for development will become a fallacy or an unattainable hope.

Chile has always been ready to co-operate in the creation of a corpus juris to govern all activities by States in outer space. To this end, it has supported the resolutions of the General Assembly whereby international instruments relating to outer space were adopted.

Turning now to the subjects dealt with by the Legal Sub-Committee, it is regrettable that the draft treaty relating to the moon has not yet been completed. We believe that, at the next session of the Legal Sub-Committee to be held next year, that treaty should be finalized, since it would represent a considerable achievement in space legislation and a guarantee for the developing countries that the great Powers are motivated by a sound spirit of justice and co-operation.

As we stated earlier, the General Assembly could break the present deadlock by itself adopting a resolution defining once and for all the legal status of the natural resources of the moon and other celestial bodies. We believe that such a declaration would not only prove useful to the development of a body of space law but would also represent a positive contribution to the implementation of the new international economic order.

As regards the use by States of artificial earth satellites for direct television broadcasting, we note the obvious progress achieved through the formulation of nine principles. However, in our view, the principles still pending are of the greatest importance to the developing countries, since it is they that will ensure respect for their sovereignty and provide a guarantee of non-intervention in the internal affairs of other States. These principles are those relating to prior consent and participation, programme content and unlawful inadmissible broadcasts.

As we had occasion to state at the last session of the Legal Sub-Committee, we feel it most important to recognize that the free flow of information and

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respect for the sovereign rights of States are not conflicting principles but, rather, could be made compatible in the light of the general principle of international co-operation which is at the very foundation of the entire legal structure built up on the basis of the Outer Space Treaty.

However, the study of the law to govern the optimum use of outer space must take account of any present experience which may be analagous with circumstances that might arise in the future. We must not forget that the purposes pursued are peaceful, that non-intervention in the internal affairs of other States must be guaranteed and that any unlawful and inadmissible broadcasting must be prohibited.

The Minister for Foreign Affairs of Chile, in his statement of 5 October in the general debate in the General Assembly, said:

> "We continue to be the victims of the Soviet Union's intervention in our own national political life. Indeed, their radio broadcasting stations continue to broadcast daily and for many hours, on 45 different frequencies and in the Spanish language, programmes intended to bring about internal subversion and the overthrow of the Chilean Government."

This Chilean experience, which reveals a blatant violation of the principle of non-intervention and a true act of aggression against my country through space, has a direct bearing on the item before us: first, because of the need, to which we have already referred, to safeguard sovereignty and assure non-interference in internal affairs; second, because high-frequency radio broadcasts from ground stations reach their destination at another point on the earth's surface by following a trajectory which involves reflection against the ionospheric layers surrounding the Earth and hence penetration into outer space.

We would not wish television to be used for similar purposes. We cannot permit that the possibility be left open for a Member State to continue to use outer space to promote the overthrow of the Government of another Member State.

For this reason, we believe that this is the appropriate time to adopt suitable legislation on the subject with which we are dealing and to prevent the continuation of these abuses on a global scale.

If we are to establish norms for the use of outer space, we must be very careful to ensure that such norms do not permit, through ambiguous drafting, the

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commission of subtle forms of propagandistic aggression and the violation of the principles of the Charter from space.

On the contrary, the use of space should be a new opportunity afforded to mankind in its search for the peace, happiness and well-being to which we all aspire.

We believe that the Legal Sub-Committee has made obvious progress on the item relating to the legal implications of earth resources survey by remote-sensing artificial satellites by formulating the text of five draft principles. This progress holds out hope that in the near future it will be possible to complete work on these subjects as a matter of priority.

Chile will join the network of countries using the services of artificial satellites for the development of their agriculture. Sizeable investments will be made to integrate fully in the network of nations using the United States Landsat satellites which are programmed to obtain data on the natural resources of the earth, especially as far as agriculture is concerned.

Another subject on which no appreciable progress has been made is that relating to the definition and/or delimitation of outer space. We believe that this matter warrants careful study, since this lack of precision as to the limits applicable to each State could well lead to disputes affecting international relations and generating unnecessary tension.

(Mr. Huerta, Chile)

The world has become smaller in these past few years. Knowledge of outer space, together with staggering scientific and technical advances, have contributed to create an appreciable boom in telecommunications and means of transport, as a result of which the interdependence of States has increased and the need for international co-operation has become more indispensable.

The United Nations has played and should continue to play an important part in organizing international co-operation in the use of outer space. We should stress the fact that, under its auspices, progress is being made in respect of the body of law governing such activities. The tasks entrusted to the Legal Sub-Committee for next year will make it possible to complete bodies of law as important as the draft treaty relating to the moon, and the conventions on remote sensing, direct television broadcasting and the delimitation of the outer space of each State.

The United Nations sponsors the Thumba station in India and the CELPA station in Mar del Plata, Argentina. We believe it is very important for this Organization consistently to acquire greater responsibility in the scientific and peaceful exploration of outer space, so that all States may be able to participate more extensively in this field of activity.

As regards the dissemination and exchange of information, United Nations activities will become increasingly effective and enable us all to benefit from such knowledge.

In the area of training and international co-operation programmes, the United Nations has done substantial work.

For all these reasons we favour strengthening the structure of the Outer Space Affairs Division of the Secretariat, to enable it to embrace a larger number of activities.

The possible convening of a United Nations conference on outer space matters arouses undoubted interest, as shown by the repeated expressions of support given by a large number of delegations. In our view the in-depth study entrusted to the Secretariat will dispel the doubts of certain countries concerning the objectives of such a conference, while at the same time clearly indicating that it will in no way affect the priority tasks to be undertaken by the Committee on the Peaceful Uses of Outer Space, in keeping with the Assembly's mandate.

(Mr. Huerta, Chile)

We have noted that the Scientific and Technical Sub-Committee will next year consider information to be provided by States on programmes and plans relating to the generation or transmission of solar energy through space technology. The question of the utilization of solar energy or, to be more precise, the international problems arising out of the exploitation of solar energy and related types of energy, were recently submitted to the Committee on the Peaceful Uses of Outer Space and will be the object of consideration and study by Chile's national space institutions. Chile attaches particular importance and gives priority to solar energy. The Chilean universities, in particular the Universidad del Norte, are carrying out programmes on this source of energy. The Corporación de Fomento, together with the Fundación Retalle, in Geneva, are carrying out important work on the subject. Among future possibilities for Chilean participation in the United Nations University would be the establishment of a regional centre of that university in northern Chile. Chile intends to take part in the World Conference on Science and Technology to be held in Vienna in 1979, and will submit research papers on the subject.

In connexion with the inclusion in the agenda of the Committee on the Peaceful Uses of Outer Space of an item on the utilization of solar energy, we must stress the distinction that exists between the status of celestial bodies, including the sun and other stars which represent sources of energy, and the régime proper to the terrestrial utilization of the natural resource of solar energy. Quite obviously, stellar sources of energy must be subject to space law, and the Committee on the Peaceful Uses of Outer Space must analyse the question to ensure their adequate preservation, and the maintenance of the present rate of utilization in earth and space activities. The exploration and use on earth of solar energy must remain within the purview of the capacities and possibilities of each nation, without prejudice to international co-operation and technical assistance.

Finally, we believe that comprehensive legislation on all these subjects should be based on principles and provisions to ensure adequate international control over all exploration and exploitation activities of outer space, to the end that all States may enjoy just and equitable treatment, that international co-operation may be promoted, and that these activities may be pursued in an atmosphere of confidence and harmony within the international community. The space era, with its

(Mr. Huerta, Chile)

enormous potentialities, must become a new factor of well being for mankind and a source of rapprochement for all peoples, reducing the possibilities of tension and confrontation.

The CHAIRMAN: I thank the representative of Chile for the congratulations he addressed to the Chairman of this Committee.

Mr. RAZA (Pakistan): Permit me, Mr. Chairman, to extend to you on behalf of my delegation and on my own behalf our warm congratulations on your unanimous elevation to the office of Chairman of the First Committee. We are confident that, with the wealth of experience at your command, the discussions in this Committee will continue to be animated by a desire to achieve success. We also wish to place on record our felicitations to your fellow officers on the Committee on their unanimous election.

May I also take this opportunity to thank the Secretariat, particularly the Director of the Outer Space Affairs Division, Mr. Perek, for the commendable work it has done in providing us with such complete documentation on agenda items 31 and 32, currently under consideration by the Committee.

As in the past, Pakistan has followed the deliberations of the Committee on the Peaceful Uses of Outer Space and of its two Sub-Committees with great interest and care. In participating in the work of the Legal Sub-Committee, we believe we have made a modest contribution in an area that is of vital interest to developing countries such as mine.

We in Pakistan are acutely aware of the benefits that can accrue to developing countries from a concerted and co-ordinated application of outer space technology. This is a field which can be of immense benefit to countries like mine in our efforts to achieve a decent standard of living. We are only too conscious of the gap that still separates the developing countries from the technologically more advanced countries. My country is naturally anxious to participate fully in the activities relating to outer space so that the benefit of this marvellous branch of science may be effectively used to ameliorate the economic and social condition of our people. We believe that the peaceful uses of space technology are an important factor in accelerating the overriding objective of economic development to which my country has been devoting itself with single-minded zeal.

(Mr. Raza, Pakistan)

We are happy to note that the Legal Sub-Committee was able to achieve considerable progress in the elaboration of principles governing the use by States of artificial earth satellites for direct television broadcasting, with a view to concluding an international agreement or agreements in accordance with General Assembly resolutions 2916 (XXVII) and 3388 (XXX). My delegation feels it essential that the pace of progress should not be allowed to slacken and that the momentum built up should be maintained, so that the remaining work can be speedily finished.

With regard to the deliberations on the draft treaty relating to the Moon, we are somewhat disappointed that no real progress could be made by the Legal Sub-Committee. My delegation wishes to urge that renewed efforts be made to bridge the differences so that the draft treaty can be finalized and opened for signature.

We take this opportunity of commending the Legal Sub-Committee on its success in formulating the texts of five draft principles and identifying three new elements in its consideration of the legal implications of earth resources surveys by remote-sensing satellites. In our view this represents a happy augury for the work that remains to be done in this complicated and difficult field. Side by side with this aspect of the work, my delegation supports the recommendation of the Committee on the Peaceful Uses of Outer Space that the Secretariat should make available to it various studies referred to in its report concerning remote sensing by satellite, for consideration by the Scientific and Technical Sub-Committee at its fourteenth session, due to be held in early 1977.

(Mr. Raza, Pakistan)

We would be failing in our duty if we did not commend the excellent work being done by the United Nations space applications programme and by the United Nations Expert on space applications. In order to increase the effectiveness of this programme, we strongly feel that enhanced allocations should be made in this field so that the content and the scope of the programme can be broadened. My delegation also wishes to express its appreciation of United Nations agencies, such as WMO, ITU, UNESCO and FAO, and other United Nations bodies, such as UNDP and UNEP, for their interest and contribution in the development of space applications.

With regard to the question of holding a United Nations conference on outer space and outer space matters, my delegation has in the past supported the view that the convening of such a conference devoted exclusively to outer space matters is both necessary and timely. I wish to reiterate this view.

Another area of outer space which in our view requires speedy finalization is the field related to definition and/or delimitation of outer space and outer space activities. While there is no doubt that United Nations assistance to developing countries in space research and applications is invaluable, there should be some assurances in the form of binding, unequivocal commitment by the countries receiving assistance so that the facilities developed with United Nations assistance are not diverted to other than peaceful uses.

My delegation is happy at the universal acknowledgement that the benefits to be shared by all nations from outer space technology should be supervised and guided by the United Nations. Here I should like to reiterate a proposal which we had occasion to present in the past, namely the establishment of an international régime, preferably an agency, to safeguard against possible misuse or abuse of the fast developing pool of technical knowledge in this field. We would therefore have welcomed a specific allusion in the resolution to the need for an effective international régime to guard against misuse or abuse of outer space technology for other than peaceful means. Such an endorsement is contained in General Assembly resolution 1802 (XVII) and operative paragraph 25 of General Assembly resolution 3234 (XXIX). However, as we agree with the general thrust of the draft resolution, and inspired by our willingness to preserve a

(Mr. Raza, Pakistan)

consensus, we did not press for the inclusion of an appropriate paragraph reflecting our concern and need. We are happy to support the resolution and recommend its unanimous adoption.

In conclusion, I should like to thank, on behalf of my Government, the representative of Austria for his country's offer to act as host to the United Nations conference on outer space matters next summer in Vienna. We appreciate and look forward to the prospect of discussing outer space matters in a city which is widely known as a city of a million memories.

The CHAIRMAN: I thank the representative of Pakistan for his congratulations addressed to the Chairman of this Committee and to the other officers of the Committee.

Mr. HARMON (Liberia): It is my pleasure on behalf of the Liberian delegation and myself to join other delegations in sincerely congratulating the Chairman, a worthy son and a distinguished diplomat of Poland, on his election as presiding officer of this important Committee. It is also an appropriate coincidence, since the Polish Mission has contributed so much to the difficult task, and I mean -- technically difficult -- of what is now in effect developing into a new science.

Only recently the whole world celebrated the 500th anniversary of the great Copernicus, whose vision of the universe laid the foundation for the work we are discussing here today. Already in his time his theories transcended national boundaries and became the intense preoccupation of the Europe of his era..

It was international then and it is international now, having developed from the agenda of a single continent to that of all continents. This was inevitable since the very nature of ourter space underlines the global problems before us, beyond all national borders, and all man-made frontiers.

We feel assured therefore that under your experienced leadership we will accomplish our task with notable results. I should like to pledge to the Chairman and the other officers of the Committee our fullest co-operation in the work of the Committee.

(Mr. Harmon, Liberia)

At a time when in the Third Committee we are discussing the need to preserve national cultures, we are also in effect in this Committee grappling with a new culture which belongs to no single nation, however significantly advanced, and which may be, uniquely, a culture purely international in its very nature.

We might give thought to the historic fact that the birth of this new science coincided with the existence of the United Nations, and this is important because, as the Committee on Outer Space and its able Sub-Committees are now revealing, application of this science might have remained stillborn or degenerated into sheer fragmentation in a world unequipped to organize it into the unity of the science of man.

Now, in a comparatively short time we see the practical benefits of its potentialities emerging under the driving momentum of modern technology. Only thirty years ago, the League of Nations would have been astonished at the idea that this item could appear on its agenda. And I might add that it was not so long ago that many Member States regarded the whole venture as the extravagant preoccupation of a few super-space Powers rivalling for perhaps status, perhaps prestige. To be frank, to some of us developing nations it seems like a thoughtless diversion of funds which might be better invested in the pressing problems of development.

(Mr. Harmon, Liberia)

But now, as we see the development of the remote sensing satellite as a tool for a short-cut to discovery of otherwise invisible natural resources, its potential in speeding up the all-important action to combat desertification; its immeasurable range of planning and forecasting in the realm of agriculture as a better supplier to a hungary world, we see that what we are dealing with in this issue is greatly related to the whole category of economic development.

In this sense, it seems not too remote to hope that if we in this Committee deal with the several problems before us we shall develop a new means of contributing to the attainment of a new and better balanced world economy.

For this reason my Government wishes to express its appreciation for the constructive achievements of the Outer Space Committee with its Legal and Scientific and Technical Sub-Committees and their working groups.

Collaborating with the world's outstanding non-governmental international scientific associations such as COSPAR, etc. they have been able to make yesterday's science fiction today's science facts.

Of course there are problems. In Africa, as on other developing continents, the new nations are somewhat nervous over the impact of remote sensing on their sovereign right to their natural resources. In the case of the satellite for direct television broadcasting, other nations are apprehensive of the subversion of this tool for psychological warfare propaganda. The fear is that these space satellites may become weapons of martial hostility instead of serving the peaceful association of States on earth, in accordance with the Charter.

My Government is confident that these problems can be worked out, all the more since the deliberations of all the Committees have been conducted in an atmosphere remarkably free of the usual tensions or the rivalry of two major space Powers.

Both space Powers agree that progress in space exploration can contribute greatly to international co-operation. As in the further reaches of outer space so in the satellite altitude they have opened widely the doors of their sciences. We are grateful to United States Ambassador W. Tapley Bennett for the very detailed exposé he made available to us on United States work in this field before the Committee on Monday, 18 October, and to the Soviet group of States for a similar presentation of their paper, now a United Nations document.

(Mr. Harmon, Liberia)

In the issues before us we have come to the stage where scientific and technical development is becoming a judicial issue. These issues will be commented upon by delegations as a guide to the continuation of the work of the Committee and will involve one more challenge in the development of what may be designated as the Law of Space, not unlike the effort to achieve the Law of the Sea.

Liberia is not a space nation, but we as its representatives shall follow the deliberations with great care and develop our positions on any draft resolutions which may emerge in the preparation of an international convention on the principles governing the use of satellites by States for direct TV broadcasting. We in Liberia -- as an African State, with only a few major natural resources as the basis of our economy -- are perhaps more interested in the detection of as yet undiscovered deposits -- and I might add that we have no fear that the discoverer will withhold such data from us. What we do with new-found resources will always be within our will and our decision as a sovereign right and the determination of our people.

There is finally the question of the draft treaty with regard to the Moon; and I should add that Liberia is not leaving the Moon as the special preserve of those who are now exploring it. After all, the Moon has also been shining on the African continent. Whatever minerals may be there -- and nothing will surprise us any longer -- are no different from the minerals of the sea in respect of which the principle of the common heritage of mankind has been generally accepted. But as in any legacy, we hope that there will be no bitter contest among the legatees.*

In previous statements I have not failed to indicate my Government's interest in and the great importance which we attach to outer space affairs, and in particular to the United Nations activities in this field, but not being able to undertake a space programme for the development of space science and technology and space applications, we nevertheless would like to appeal to those who are in research and development work in space technology and are presently engaged in the development of space systems for various kinds of sounding rockets and

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* Mr. da Costa Lobo (Portugal), Vice-Chairman, took the Chair.

(Mr. Harmon, Liberia)

satellites, to pursue this work in the interest of mankind everywhere. As citizens of a developing country, it seems to us that the principle objectives of the space programme must be to exploit space technology for national development in the field of mass communication, weather studies, including early warning of storms and long-range weather forecasting, search and management of national resources, food production and management and surveys or Earth, hydraulic and oceanographic resources, to cite a few; so let us keep this in mind in all of the stages of individual and collective planning and the implementation of this programme.

I have one more important point: what is the role of the small nations in the development of these twin satellites which open before us a richer and more communication-integrated world? We are told by the space Powers that we are an integral part of their plans -- an indispensable factor in the whole system. Operationally the satellites need the co-operation of regional and national land bases. Thus, third-world nations inevitably enter into the partnership. But if they are not to remain silent partners they must be supplied with academic, scientific and technological assistance in absorbing the elements of this new science.

A suggestion has been made that somewhere in the United Nations provision should be made for such technical assistance; but my delegation would respectfully suggest and recommend that a central point of supply must be supplemented by a division in the regional economic commissions. If my fellow African colleagues in this Committee are ready, my delegation, jointly with others, will suggest that a bureau for the dissemination of such training be established in the United Nations Economic Commission for Africa.

We in Africa are often referred to as "the discovered continent". Let me say here most emphatically that we have now reached the stage where we would play the role of the discoverer. Africa, too, aspires to become the continent of science. It is science that -- after we have overcome other dramatic problems -- will make us free.

The CHAIRMAN: I thank the representative of Liberia for the congratulations he has addressed to the Chairman of our Committee and for the reference to him and his country. I will certainly convey his words of congratulation to Mr. Jaroszek.

The meeting rose at 1.10 p.m.