

United Nations
**GENERAL
ASSEMBLY**

THIRTY-SECOND SESSION

*Official Records**



NOV 28 1977

FIRST COMMITTEE
43rd meeting
held on
Wednesday, 23 November 1977
at 3 p.m.
New York

UN/ISA COL 43
VERBATIM RECORD OF THE 43rd MEETING

Chairman: Mr. BOATEN (Ghana)

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77-73255

Distr. GENERAL
A/C.1/32/PV.43
28 November 1977

ENGLISH

The meeting was called to order at 3.40 p.m.

AGENDA ITEMS 35 AND 36 (continued)

INTERNATIONAL CO-OPERATION IN THE PEACEFUL USES OF OUTER SPACE: REPORT OF THE COMMITTEE ON THE PEACEFUL USES OF OUTER SPACE (A/32/20; A/C.1/32/L.39) 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/32/20; A/C.1/32/L.39 and Corr.1, A/C.1/32/L.42 and L.43)

Mr. SCHEFFERS (Netherlands): Although not a member, the Netherlands follows closely the work of the Committee on the Peaceful Uses of Outer Space and its two Sub-Committees. Our interest springs not only from the increased importance of the questions dealt with in that Committee but also from the fact that the Netherlands is directly involved in space research and the application of space technology. The involvement of the Netherlands in those fields is rooted in a long tradition in such disciplines as astronomy, radio astronomy, physics, electronics and aeronautics.

The careful selection of projects made it possible for the Netherlands space research effort to progress successfully. The Netherlands experience in space matters was also a decisive factor when the European Space Research Organization, now transformed into the European Space Agency, in the early 1960s selected Noordwijk, the Netherlands, for the establishment of the European Space Research and Technology Centre, its main centre. The vicinity of this centre was in turn beneficial for Dutch space research groups as well as various other related institutions such as the National Aerospace Laboratory.

The developments I have just outlined culminated in success for the first Netherlands space project.

(Mr. Scheffers, Netherlands)

The Astronomical Netherlands Satellite (ANS) was the first satellite completely developed and built in the Netherlands, including two of its three scientific experiments. On earlier occasions scientific experiments developed in the Netherlands had been flown in various United States and European-built satellites, the first time in March 1968. In addition, Netherlands scientific experiments were flown in sounding rockets and balloons.

The Netherlands also has a long tradition in the field of geophysics and geodesy. This, also as a result of the International Geophysical Year, has contributed to the extension of satellite geodesy.

As a result of the success with the Astronomical Netherlands Satellite, the Netherlands Government last year decided to develop a new satellite - the Infra-Red Astronomical Satellite (IRAS) - with the objective of mapping infra-red sources in the universe.

Apart from this national space programme, the Netherlands, as a member of the European Space Agency, also participates in many interesting space projects which are conducted in the framework of the European Space Agency, such as SPACELAB, the Ariane launcher programme and telecommunication projects. The Netherlands attaches particularly great importance to co-operation within the framework of the European Space Agency.

I should like now to make some observations on the issues that are dealt with in the Outer Space Committee. As to the issue of remote sensing of the earth from space, it is my Government's view that intensive international co-operation - globally as well as regionally - offers the best prospects for deriving maximum benefits from remote sensing technology. It is gratifying indeed that this view is also reflected in the work of the Outer Space Committee. It is of the greatest importance that the developing countries be offered the possibility to benefit from remote sensing technology by providing them facilities for education and training and assistance in setting up infrastructural provisions. It is our view that the United Nations has an important co-ordinating and stimulating role in this field.

My Government noted with satisfaction the view of the Scientific and Technical Sub-Committee in paragraph 41 of document A/AC.105/195 that there is no scientific or technical basis for sensed States not having timely and

(Mr. Scheffers, Netherlands)

non-discriminatory access to data concerning its territory. It is therefore right that this view should have been reflected in principle XI drafted by the Legal Sub-Committee (A/AC.105/196, annex III). This principle is in conformity with our view that it is desirable that remote sensing data should be made public and accessible as much as possible. In order to contribute to maximum accessibility for developing countries, the Netherlands Institute for Aerial Survey and Earth Sciences, which has already trained in past decades many students from Africa, Asia and Latin America in aerial survey, now also gives particular attention to training in the handling of remote sensing data.

With respect to the second big issue in the Outer Space Committee - direct television broadcasting by means of satellites - my Government welcomes the agreement reached so far in the Outer Space Committee on the principles governing the use of satellites for direct television broadcasting (A/32/20, annex VII). However, my Government has serious objections with regard to the last three principles drafted by the Committee. In this connexion I should like to recall that at the World Administrative Radio Conference for the planning of satellite broadcasting, held in Geneva in January and February this year, satellite positions in geostationary orbits and frequency bands have been allocated for most parts of the world. As a result of this Conference, the most controversial problem in the discussions in the Outer Space Committee has, in our view, almost lost its practical meaning, that is, the question whether consent of a State is necessary for broadcasts directed at the territory of that State. Such broadcasts are not possible any more without violating the rules of the International Telecommunication Union (ITU).

My Government therefore doubts whether it is necessary to draft a principle on agreement and consultation between States. However, if it is widely felt that we should draft such a principle, which for the greater part should be of a theoretical nature, the starting-point for the Netherlands will be the principle of the free flow of information without regard to national boundaries. Any regulation in the field of direct television broadcasting by means of satellites should be only of an exceptional character. A general requisite of prior consent of the receiving State is, in our opinion, not acceptable. In our view,

(Mr. Scheffers, Netherlands)

restrictions such as the obligation of consultation with a receiving State should bear only upon broadcasts specifically directed at other States. No such restrictions should apply with respect to technically unavoidable spill-over of national broadcasts.

In the light of the foregoing, the Netherlands considers that the principle concerning unlawful and inadmissible broadcasts undesirable. This holds also for the principle on programme content. Such a principle is unacceptable to the Netherlands both in regard to broadcasts to its own territory and in regard to broadcasts directed at other States. In the latter case, such a principle is superfluous, in view of the actual limitations of that kind of broadcasts under the rules of the International Telecommunication Union. I should also like to note that it would hardly be possible to implement the principles on programme content and unlawful and inadmissible broadcasts because of the absence of principles drafted by the Outer Space Committee on the mandatory settlement of disputes.

The last issue that I should like to dwell upon is that of definition and/or delimitation of outer space. My Government doubts whether it is useful to aim at a territorial delimitation of outer space from national air space. In our view, a division into a national and an international area does not present a solution for an adequate arrangement of interests going beyond national boundaries.

My delegation believes that it would therefore be better to opt for a functional approach. Nobody will, for example, deny that a satellite in earth orbit is subjected to space law and that aeroplanes and balloons are subjected to national law. For new activities where it is not so evident whether they are carried out in air space or in outer space, like the space shuttle, further rules could be elaborated complementary to general principles of international law concerning the conduct of States, such as the United Nations Charter.

The final observation that I should like to make concerns the enlargement of the Outer Space Committee. Although my delegation shares the view, as expressed in draft resolution A/C.1/32/L.43, that the enlargement of the Outer Space Committee is warranted in view of its slightly unbalanced composition at present, we feel that the Outer Space Committee should first be given the opportunity to examine ways and means for wider participation in its work. My delegation therefore supports the Austrian draft resolution (A/C.1/32/L.42) to that end.

Ms. HOLZER (Austria): Twenty years have passed since mankind took its first bold step into outer space with the launching of Sputnik. Numerous and not less spectacular ventures followed extending the boundaries of human activity to an area hitherto the domain of imagination and speculation both in the popular and the scientific sense. No one can deny today that the exploration and use of outer space, the development of the technology involved and the application of such technology in many other fields have been the single most innovative force over the past two decades. Questions have been raised and continue to be raised by the general public about the usefulness of such endeavours in relation to the expense and effort that they require.

(Ms. Holzer, Austria)

In view of the actual and potential benefits involved we feel that the answer must continue to be in the affirmative. Not only has our still modest though increasing knowledge about the functioning of the universe opened new insights potentially significant for our future and survival on earth, but there is already a well-developed and large body of scientific know-how, the direct or indirect result of space activities, which is being applied to alleviating and solving problems, particularly of a global nature. Space technology, like no other, has revolutionized communication, so vital in an increasingly interdependent world, with its possible use in the field of education and development. It has introduced methods of surveillance and assessment of the resources and the environment of earth, thus improving our capacity to explore conditions essential for our survival. The sceptics of man's venture into outer space, therefore, would appear to have a weak case. The conquest of outer space remains unabated. From the very inception the essentially international element in this particular activity has been recognized.

It is to be noted with great satisfaction that national competition, or even antagonisms, have on the whole not accompanied man's steps beyond the limits of space. There has been, from the very beginning, a clear perception of the need to co-operate in such tremendous tasks and to share in the results. The United Nations was chosen as the appropriate forum through which to channel such co-operation. The Committee on the Peaceful Uses of Outer Space, which held its twentieth anniversary session a few months ago in Vienna, continues to provide the focal point. It has been instrumental in the elaboration of the fundamental legal principles governing space activities, such as those incorporated in the Outer Space Treaty of 1967, the tenth anniversary of which we are now celebrating. It has played a vital role in the scientific assessment of space-related technology and its practical application and in the promotion of co-operative endeavours. Last but not least, it has contributed to the growing awareness of peoples and nations of the potential benefits of space research and technology for all, whatever their level of development, and encouraged well-nigh global participation in the manifold space-related activities. Finally, it continues to bear a

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special responsibility in having to keep abreast with rapidly evolving technology and its political, legal, scientific and economic as well as organizational implications.

The Committee and its two sub-committees have, from the very start, operated on the principle of consensus. That has served greatly to ensure the effectiveness of its decisions and has provided a guarantee for every viewpoint to be heard and duly taken into account. It has fostered a spirit of conciliation and co-operation typical and, indeed, essential for the success of our efforts.

Among the subjects currently under discussion in the Outer Space Committee and its two sub-committees, the Austrian delegation would like briefly to outline its basic position on the following matters. Remote sensing of the earth from space poses a number of practical, organizational and legal-political questions. Austria feels that increased attention should be paid to co-ordinating efforts, particularly in the light of the likelihood that more than one operational system will develop. Further efforts are required to ensure truly world-wide participation in the benefits of this technology. Any legal framework eventually to be devised should promote instead of restrict the extension of such benefits to all while paying due regard to concerns emanating from the concept of national sovereignty over national resources. A formula balancing these goals must be searched for in sincerity.

As regards the set of principles on direct television broadcasting via satellites, we welcome the fresh start taken this year by working on a tentative principle on "consultation and agreements" which, if final agreement can be achieved, should in the view of this delegation eliminate the need for a number of other texts previously worked upon. Decisions taken on an organizational-technical level point at the direction our work should reasonably take in this context.

Another matter discussed during this year relates to the need for and usefulness of convening a second United Nations conference on outer space matters. My delegation favours such a conference as it would provide an opportunity to assess the progress made and identify the primary areas

(Ms. Holzer, Austria)

of future common efforts, an opportunity which is not likely to be afforded to the same extent by any other international gathering such as the United Nations Conference on Science and Technology for Development. Austria will therefore actively co-operate in the work of the group to be set up by the Scientific and Technical Sub-Committee at its next meeting.

Mr. ARTEAGA ACOSTA (Venezuela) (interpretation from Spanish): Twenty years ago, at the very time of the launching of the space age, the United Nations undertook the task of channelling, for the benefit of all mankind, the numerous achievements promised by the flourishing space activities. As the exploration of space became more and more ambitious and new horizons were opened up, and its use began to generate specific results for the economic and social progress of all peoples, the legal and organizational bases which were to shape space law were gradually being laid down.

We take pleasure in noting the considerable progress achieved at the twentieth session of the Committee on the Peaceful Uses of Outer Space this year, in the definition and regulation of the complex and novel situations which, like a constant challenge, have been posed by the continuing growth and improvement of space technology. No less significant than the achievements in the space field, whose repetition will of course gradually convert it into part of our common heritage, were the legal instruments and specific programmes agreed upon to promote economic co-operation in this field.

In the whole process of constructing a new body of rules and principles, pride of place belongs to the Treaty, whose tenth anniversary we are now celebrating, on the Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies.

In 1977, a year of anniversaries in the realm of space endeavours, the Committee on Outer Space has been able to undertake work in keeping with the rate of progress which, to a greater or lesser extent, has marked its proceedings over the years. Important questions relating to the legal and political implications of the use of certain satellites still remain unresolved. However, the differences which are holding up agreement on particularly controversial points should be viewed as part of the natural process of the reconciliation by means of negotiation of divergent and often extreme opinions, with a view to achieving an understanding satisfactory for all.

(Mr. Arteaga Acosta, Venezuela)

In view of the complexity of the subjects under examination, it is commendable that the agreements reached by the Outer Space Committee on various questions have been achieved within a reasonable period of time. Even more important, the decisions of the Committee have been achieved on the basis of consensus. It is to be hoped that the Committee will be able to resolve the problems which it has on its agenda and also those which will have to be examined in future, in the same spirit of accommodation and flexibility which have guided its work so far.

The position of Venezuela on various items dealt with in the report of the Committee has been set forth at the meetings of the two sub-committees. However, we would like to take this opportunity to stress a few points.

As it emerges from the report of the Committee with regard to the work of the Legal Sub-Committee, the work on principles to govern activities by States in direct television broadcasting satellites has been the subject of intensive negotiations which have succeeded in narrowing down differences of view. This has been made possible largely because of the formulation of the principle relating to consultation and agreements which, in our view, is a step in the right direction. On the basis of this principle, we hope that it will be possible to reach a compromise and bring about general agreement on this important subject.

With regard to the legal consequences of remote sensing of earth from space, it is encouraging that the Legal Sub-Committee has prepared various draft principles and has identified various common elements in a subject so complex and important. The position of Venezuela on these matters, as I said, has been set forth on a number of occasions. However, we would like to repeat our whole-hearted support for one of the proposals made in the relevant proceedings of the Sub-Committee to the effect that there should be respect for the principle of permanent sovereignty of all States over their natural wealth and resources, as well as their inalienable right to dispose of such resources and of the information relating thereto.

(Mr. Arteaga Acosta, Venezuela)

With regard to the draft treaty on the moon, we note once again that, in spite of the efforts which have been made and the profusion of proposals, the necessary conditions have not been created for the achievement of an understanding with regard to the legal status of the moon and its natural resources. Nevertheless, the relevant debates have revealed that there is an overwhelming view in favour of declaring such resources to be the common heritage of mankind. This would be in keeping with the principles of justice which should serve as a basis for genuine international co-operation in space.

Among other things, the Scientific and Technical Sub-Committee will be considering at its next session questions relating to the convening of a possible United Nations conference on outer space. The delegation of Venezuela supports the idea of holding a second United Nations conference devoted to outer space matters. The conference on science and technology to be held in 1979 will deal with some aspects relating to the subject of outer space. However, because of the quantity, variety and complexity of the matters to be dealt with by this Conference, questions of outer space cannot be given the same attention which they would receive if they were to be considered at a conference devoted exclusively to them. Furthermore, the breathtaking advances in space technology and its extreme importance amply justify the convening of a second United Nations conference on outer space. We believe that in order to make the most of the results of a conference on science and technology for development, the conference on outer space could be held perhaps in 1980 or 1981, and one of its primary objectives would be that of consolidating even further the bases for genuine international co-operation in this field, so as to make it easier for developing countries to benefit more systematically from the advantages of space technology.

(Mr. Arteaga Acosta, Venezuela)

As stated in paragraph 72 of the report, the Committee decided to request the Scientific and Technical Sub-Committee to examine next year, the physical nature and technical attributes of the geostationary orbit. We believe that this is a good decision as a first step enabling the Committee to go into the various implications of the use of the geostationary orbit.

Matters related to outer space are assuming increasing importance as the applications of space technology become more sophisticated and diversified. It is obvious, therefore, that there is growing interest on the part of many third world countries in questions of outer space, because they are anxious not only to benefit from its applications but also to contribute to the formulation of the various rules which will govern these activities. The desire expressed by a number of delegations to participate directly in the work of the Outer Space Committee seem to us well-founded and legitimate. For these reasons, the delegation of Venezuela is ready to support the initiative of a group of Latin American countries to expand the membership of the Committee.

Mr. ROMULO (Philippines): We are gratified by the hopeful report of the Committee on the Peaceful Uses of Outer Space which is before us. We have studied it carefully because we believe that of the enormous volume of documentation which reaches us, this is one of the most important documents. It is apparent that some notable progress has been made on one of the two areas given priority concern during the past year, specifically that of principles to guide the uses of direct broadcast television. The Legal Sub-Committee has managed to delineate an area which lies between the extremes of "prior consent" and laissez-faire broadcasting by enunciating a principle of "consultation and agreements between States". It is quite clear that the purity of neither absolute position can be maintained if we are to secure *an agreement*, and it is just as clear that, in the absence of an agreement, an untempered "war of words" to no one's advantage is sure to ensue.

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(Mr. Romulo, Philippines)

It is earnestly to be hoped that the two major protagonists will, in the near future, come to feel that the advantages of a reasonable compromise far outweigh the advantages of absolute principles which they will be unable to apply absolutely. The marvelous advantages for education, for informational sharing, for growth of understanding among peoples for peace, and for mutual enrichment by the unique cultures of all States which are implicit in the advent of expanded satellite television, are too significant to be allowed to lie dormant for any considerable time. If agreement is long delayed, circumstances will overrun us, as they have so often in the past.

(Mr. Romulo, Philippines)

A second area of major contention remains that of sharing the resources of the moon or, much more remotely, of other celestial bodies. We continue to be convinced that there exists no reasonable alternative to declaring the resources of the moon or of any other celestial body that may be exploited the "common heritage of mankind". In the light of the fact that this principle has already become fundamental to consideration of the question of the resources of the sea-bed, it is the more surprising that it has not by now enjoyed unanimous endorsement as applied to the moon, with regard to which mining operations are considerably more remote and with regard to which national rivalries should be considerably less acute. We note that in the last analysis the Declaration guiding the law of the sea Conference was adopted with 11 abstentions, and we cannot but find it likely that in the last analysis members would again wish, after a reasonable period has elapsed, to move ahead on the basis of a positive decision, once again adopting the valuable and equitable principle of "the common heritage of mankind".

I do not believe anyone will consider it unreasonable to suggest that mankind's approach to possible use of resources from beyond our own planet should be on an agreed international basis with benefit redounding to all on a just and equitable basis. It is always conceivable that we may face unprecedented and unimagined dangers from beyond our own planet, but for the foreseeable future our greatest dangers are clearly from the manner in which we approach matters of mutual concern. Ventures into space which go beyond exploration can only be properly conceived from within a framework of international agreement and decision taking. It is difficult to conceive of two, three or five rival groups of common origin visiting the earth and immediately setting up competing camps. Any such adventure would be looked upon by us as peculiar and self-defeating. We should certainly see our own ventures in the same light. Substantial activities beyond the perimeters of the earth should be assured in advance of the unanimous consent and support of the earth's peoples.

(Mr. Romulo, Philippines)

The remote sensing of resources by satellites equipped for the purpose continues to attract great interest. It is evident that here again is an area where a balance will have to be struck between the concept of non-interference in the internal affairs of States and that of unlimited surveillance by instruments of any particular State or States. Unlimited national sovereignty is a myth, in the age in which we live, for all States. No State is beyond the responsibility of self-restraint, nor can it consider itself to be immune to reasonable restraints internationally agreed upon.

We are particularly pleased by the continuing progress in the tropical cyclone abatement project of the World Meteorological Organization. The Philippines is in the heart of a cyclone belt, and from our own experience we have the profoundest sympathy, which I express now on behalf of my Government and people, for the communities of India where a cyclone has recently taken such a terrible toll. India indeed has our profound sympathy. We are hopeful that further progress will soon result in a capacity to modify substantially or redirect such storms when they occur.

Subject to further review, my Government tentatively supports the notion of convening a new United Nations conference on outer space, as long as it does not interfere with previously planned conferences and as long as it is timed to benefit from the results of relevant planned meetings. We do so from the growing conviction that the community of nations, through the United Nations, must move into a more commanding relationship to the burgeoning space activity we note all about us. Continuous communication, consultation and co-ordination are the least that is required with regard to outer space activities of all kinds. The need for providing an important role for the United Nations in encouraging compatibility of the technical features of operational sensing systems, as well as their complementarity in terms of capabilities and roles, has been emphasized in the Committee's excellent report.

(Mr. Romulo, Philippines)

In addition, I venture to suggest that an urgent item for such a conference, if it is to be held, would be the question of whether or not the United Nations should develop a significant capacity for the rationalization of outer space programmes in addition to a greatly enhanced information capability. If the United Nations is not to be outstripped by history, it is by no means too early to begin a careful review of the functional role of the United Nations in outer space affairs.

A planetary body with functional responsibilities in the field is urgently needed. One most useful outcome of an outer space conference, therefore, would be an international decision on the nature and form of such a United Nations body.

We cannot help noting the injection into our discussions of new and interesting, if exotic, subjects. I am referring to the fascinating note by the Secretariat on messages to and from extraterrestrial civilizations, summarizing the current work in the field, and quoting the message of the Secretary-General placed aboard the Voyager spacecraft. The contact with off-planet intelligences has been for some time now a matter of serious scientific concern, and it is increasingly the focus of substantial investment of time and resources. It will be important for the United Nations to maintain close liaison with qualified projects in this and in related fields, as serving the best interests of global humanity as a whole.

I am not one who feels that only exterior threats or promises can unite mankind. At the same time, it is my strong conviction that it is inappropriate, short-sighted and self-defeating for nations to seek anything other than mutual and shared advantage in any new adventures upon which we may embark. Any outer space areas of interest should be automatically considered for international jurisdiction; and establishing international jurisdiction in fields not yet torn by national rivalry not only may be an important step in itself but it may, as well, serve to point the way to modify or to bury more earthly rivalries when approached from within a broader context of mutual advantage. I appeal for the exorcism of anarchy in our relations on the frontiers of space as an objective of the greatest importance in itself and also as a means of developing new joint approaches to an international legal order capable of supplanting anarchy here among us on the earth as well.

(Mr. Romulo, Philippines)

I cannot conclude without adding my congratulations to those of others in praise of the remarkable strides taken during the year by several Member Governments in the exploration of space and in preparation of new phases for programmes of development of nearby space to serve human needs. These high achievements, if informed by principles of mutuality and equity, will indeed prove to be of great benefit to humanity. We anticipate a fruitful year for the Outer Space Committee under the direction of its able Chairman, Mr. Jankowitsch of Austria, and look forward to its next report. We must also commend the Chairman of the Legal Sub-Committee, Mr. Wyzner of Poland, and credit has to be given to Mr. Carver of Australia for the work achieved by the Scientific and Technical Sub-Committee. We hope that in the proceedings of those bodies the members will continue to be guided by the true sense of awe that their task evokes.

Mr. KOSTOV (Bulgaria) (interpretation from French):

I should like first to express our feeling of gratitude to the Government of the Republic of Austria for the excellent organization of the twentieth anniversary session of the Committee on the Peaceful Uses of Outer Space which was held this summer in Vienna. In the view of my delegation, that session was a new and important contribution to the efforts which are being made to strengthen the role of the Committee as a centre of co-ordination of activities which would expand and broaden international co-operation in the field of the peaceful exploration and use of outer space.

Twenty years have elapsed since the first socialist State in the world launched the first man-made earth satellite, the first Sputnik, which marked the beginning of the space era. That event was a remarkable achievement accomplished by Soviet science and technology which opened the way towards the conquest of space for the benefit of mankind.

The significance of the anniversary we are observing this year is the greater since it coincides with the sixtieth anniversary of the Great Socialist Revolution of October, an event which, as was pointed out by Comrade Todor Zhivkov, President of the State Council of Bulgaria

"has opened a new era in the life of mankind and has inaugurated the arrival of the greatest transformations in history in the economic, political and social fields."

In the course of the 20 years since that memorable date many events have been inscribed in the annals of the conquest of space, such as the first flight of Yuri Gagarin, the landing on the moon of American astronauts, and the launching of interplanetary stations and of guided space laboratories. The joint Apollo-Soyuz mission was a striking example of the enormous possibilities which international peaceful co-operation has opened to States in the field of space exploration.

(Mr. Kostov, Bulgaria)

The Bulgarian delegation wants to express its satisfaction that in the course of recent years co-operation among socialist countries within the framework of the "Intercosmos" programme has been developing successfully. The contribution made by Bulgarian scientists in the exploration of space may have been modest but it is in no way negligible. In that regard, they had at their disposal the considerable possibilities which socialist integration has opened to them. As far as we are concerned, there is no doubt that the small countries, too, can contribute to the efforts in the exploration of space.

As is well known last year the socialist countries signed an agreement aimed at broadening their co-operation in almost all the fields of space science and technology. An agreement was signed dealing with the participation of nationals of socialist countries in flights on board space ships and space stations of the Soviet Union. Under the provisions of that agreement, it will be possible for Bulgarian citizens to take part in space flights. We are convinced that such flights will contribute to the further development of our space science and enrich our experience and our knowledge in this field.

This year will also be the year of the tenth anniversary of the coming into force of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and other Celestial Bodies. The anniversary resolution which was adopted by the Committee in that context fully confirms the need and the considerable significance of that Treaty for the development of international co-operation in the peaceful exploration and use of outer space, including the moon and other celestial bodies, and also for the development of international law in this sphere of human activity. It is undeniable that this Treaty has played and continues to play a positive role for the progressive development of space law founded on the application of the purposes and principles of the United Nations Charter. The Treaty has served as a basis for the preparation of important international instruments such as the Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects

(Mr. Kostov, Bulgaria)

Launched into Outer Space, the Convention on International Liability for Damage Caused by Space Objects and the Convention on the Registration of Objects Launched in Outer Space. The Treaty represents and will continue to be a source of law and even of inspiration for the work of this Committee. That is why our delegation feels that particular importance should be attached to the first paragraph of the operative part of draft resolution A/C.1/32/L.39 and Corr.1 where the Assembly invites all States which are not yet parties to the Treaty to ratify the Treaty and to adhere to it as soon as possible.

Before I explain the point of view of my delegation on certain substantive points relating to the work of this Committee, I want to express our thanks to its Chairman, Mr. Jankowitsch, for the very competent and detailed presentation of the report of the last session of the Committee and of its subsidiary organs. I take this opportunity to congratulate the Chairmen of the two Sub-Committees for the excellent way in which they have discharged their tasks. It is with particular satisfaction that I should like to take note of the resolution of the Legal Sub-committee which pays a tribute to the merits of Mr. Wyzner on the tenth anniversary of his having assumed the chairmanship of that body, and in particular to his considerable personal contribution to the work of the Committee.

The Bulgarian delegation attaches considerable importance to the preparation of the working out of principles which will govern the use by States of artificial earth satellites for direct television broadcasts. Our position on this matter has been clearly stated on several occasions in the First Committee and also in the Committee on the Peaceful Uses of Outer Space. It is with satisfaction that we see that the Legal Sub-committee and its working group have achieved considerable progress in their work in that field. The tangible results of their efforts are reflected more specifically in annex IV to the report (A/32/20), "Draft preamble", and annex V, "Consultation and agreements between States". At the same time, annex VII gives us a far more complete picture of the results achieved so far in the preparation of the principles on direct television broadcasts.

(Mr. Kostov, Bulgaria)

Of course, our delegation does not want either to simplify or underestimate the difficulties which still have to be overcome in order to reach agreement, on all the questions which are related to the working out of the final draft. On the other hand, we are deeply convinced that to resolve the difficulties on the various points it is important to realize that the solution should be sought and can be found only on the basis of principles of contemporary international law which are universally recognized and, more specifically, in full conformity with the principle of the sovereignty of States and the principle of non-interference in their domestic affairs.

Hence, it is in the hope that the States members of the Sub-Committee will continue to manifest their goodwill and their eagerness to continue their co-operation in this field that my delegation entirely shares the view expressed by certain delegations, namely, that the Legal Sub-Committee should continue its efforts and give priority to this question in order to bring to a conclusion the elaboration of the principles which would govern the use by States of artificial satellites for direct television broadcasts.

Turning now to the draft treaty on the moon it seems to me timely to state that we regret very much the fact that this time again the efforts which were aimed at finding a compromise solution of the remaining questions have not yet led to a successful conclusion. In fact there is only one essential problem, and that is the problem of the natural resources of the moon. My delegation continues to be convinced that the inclusion of the concept of "the common heritage of mankind" in the text of the draft of the treaty would create far more problems than it would be supposed to solve.

At the sixteenth session of the Legal Sub-Committee, and then later at the twentieth session, several delegations suggested that the question of the legal status of the natural resources of the moon should be regulated by a non-mandatory protocol which could be annexed to the moon treaty. Without excluding the possibility of reaching an agreement on the basis of certain proposals which were made at the preceding sessions of the Committee, we are of the view that this proposal deserves special attention. Desirous that the problem of the status of the natural resources of the moon may be solved in the very near future, my delegation would like to recall that in order to achieve this it is necessary to show more goodwill and more realism.

(Mr. Kostov, Bulgaria)

My delegation would like also to note with satisfaction that the discussion of the various aspects of remote sensing of the earth from space has continued, not without success, both in the Scientific and Technical Sub-Committee and also in the Legal Sub-Committee. In our view the Scientific and Technical Sub-Committee has performed very useful work in examining in detail the questions of definitions, as recommended by the Committee at its eighteenth and nineteenth sessions. It should be stressed especially, that very serious efforts were made to work out a definition of the term "data". In that regard we support the recommendation of the Committee in paragraph 39 of its report (A/32/20), namely,

"that the Legal Sub-Committee should adopt the terms primary data and analysed information, on the basis of the definitions developed by the Scientific and Technical Sub-Committee, and should bear in mind those definitions in its work".

With regard to the continuation of the consideration of the legal incidences of remote sensing by satellites, we believe the Legal Sub-Committee has made considerable progress in its work by formulating the texts of six new draft principles. Without underestimating the difficulties, it is gratifying to note that the approach adopted by the Sub-Committee for carrying out its task, in particular concerning the method of work based on pinpointing the elements of common agreement, deserves our full support. We believe that the Legal Sub-Committee should continue to consider as a matter of priority the legal implications of remote sensing by satellite in order to formulate principles in that regard.

My delegation also wants to say a few words on the possible holding of a United Nations conference on space matters. In principle we have no objection to the convening of such a conference. However, we feel that it would be appropriate that this question be examined in depth so as to establish that the conference will indeed be useful, and also to determine its scope and its financial implications.

It seems to us wise that the final decision on this proposal should be taken with due regard to the results of the work of the United Nations Conference on Science and Technology. We hope that the working group which was set up to that

(Mr. Kostov, Bulgaria)

end by the Scientific and Technical Sub-Committee would take into consideration all the factors related to the possible convening of a United Nations conference on spatial matters.

In conclusion, my delegation would like to express the hope that by following well-established tradition the First Committee will be in a position to adopt the draft resolution on the report of the Committee by consensus.

With regard to the idea of broadening the composition of the Committee, my delegation supports the draft resolution in document A/C.1/32/L.42 submitted by Austria, which in our opinion contains a well-balanced formula capable of meeting all points of view on this matter.

Mr. BARTON (Canada): It is a pleasure for me to take the floor once again in this Committee to place on record our views on the two agenda items now before us, the report of the Committee on the Peaceful Uses of Outer Space, and the formulation of a set of principles to govern direct television broadcasting by satellite. My delegation believes that these items are of particular importance and we look forward to our debate in the anticipation that progress will be made in our attempts to resolve the issues that are involved.

Before I turn to those issues I should like to take this opportunity to express my delegation's appreciation to the Government of Austria for having invited the Committee on the Peaceful Uses of Outer Space to hold its twentieth anniversary session in Vienna. The welcome given by the President of Austria and the hospitality extended by the Government and people will long be remembered by the members of the Committee. I should like to note particularly the contribution made over the years by the Austrian permanent representatives to the United Nations in their capacities as Chairmen of the Committee. Mr. Jankowitsch is carrying on this tradition of leadership with competence and distinction. I should like also to pay a tribute both to the leadership of Mr. Wyzner on the occasion of the tenth anniversary of his chairmanship of the Legal Sub-Committee and to Mr. Carver, Chairman of the Scientific and Technical Sub-Committee.

This seems to be a year of anniversaries, and I think it would be appropriate and perhaps also salutary for us to note the accomplishments of recent years. It is 20 years since the Committee on the Peaceful Uses of Outer Space was founded, and 20 years since the first satellite was sent into orbit. Now man has walked on the moon and probes the secrets of the solar system and of other galaxies. Parallel with these remarkable scientific activities in outer space, much has been done on earth towards codifying international law in this domain.

(Mr. Barton, Canada)

This is the tenth anniversary of the entering into force of the Outer Space Treaty, and three other important international legal instruments have also entered into force. Such achievements have demonstrated that the Committee is an effective instrument in resolving important issues of concern to Member States, and of this I think we can be justifiably proud.

The Canadian space programme has matured in the past 20 years, and it too has seen its share of accomplishments. It was in fact 15 years ago, with the launching of Alouette I, which was designed and built in Canada, that we became the third nation to place a satellite in orbit. Subsequent Canadian achievements in space science research, telecommunications, remote sensing and other areas of space applications have been numerous and have been reported previously to this Committee. But I should like to repeat our continuing and increasing commitment to co-operate in the development of new technologies and new programmes with other countries.

Since last we reported to this Committee, for example, we have explored with the European Space Agency the possibilities for increasing the degree of mutual co-operation. The Canada Centre for Remote Sensing has signed agreements to exchange information and personnel and to pursue mutually agreed programmes with the European Space Agency and with the Centre National d'Etudes Spatiales of France. Following talks at senior levels, links are now being forged with the appropriate Japanese space authorities for the exchange of information and for the identification of specific and practical areas for co-operation. Finally, co-operation with our principal space partner, the United States, continues to grow. There have been a number of developments in the past 12 months, but perhaps the most significant has been discussions examining the possibility of developing a joint programme for an experimental search and rescue satellite system which would supplement existing methods for locating aircraft and ships in distress. A number of other countries are also interested in this experiment, and it may be that a truly co-operative and international project will emerge.

I should like now to refer specifically to the report of the Committee on the Peaceful Uses of Outer Space. I have already said that the Committee has accomplished much, and I believe it has. Nevertheless I am reminded that last year, when speaking on this same agenda item, I took particular pains to sound a note of urgency, to state that if greater progress were not made

(Mr. Barton, Canada)

technological developments and the expectations of people around the world would together render our debate irrelevant. We are pleased that some progress has indeed been made since last year, but much yet remains to be done, and in our view there are two areas in particular in which further progress is essential. The first of these is the question of direct television broadcasting by satellite.

In spite of the efforts of both the Legal Sub-Committee and a working party of the Committee on the Peaceful Uses of Outer Space, it has not proved possible to complete a full draft set of principles on direct broadcasting from satellites during this year. A development of relevance to the Legal Sub-Committee's consideration of this issue was the World Administrative Radio Conference (WARC) held in Geneva earlier this year. This Conference, which developed detailed plans for the broadcasting satellite service in the 12 GHz band, based its work on the principle that intentional broadcasting by one State to another requires the agreement of the receiving State.

At the sixteenth session of the Legal Sub-Committee Canada and Sweden jointly introduced a revised draft principle entitled "Consultation and Agreements", together with a draft preamble. These texts, which were consistent with the 1977 World Administrative Radio Conference, provided the basis for negotiations both in the Legal Sub-Committee and in the parent committee. During both sessions the Canadian and Swedish delegations urged the adoption of the compromise texts, which in our view represent an effective balance between the need to facilitate the orderly development of an important new area of technology and the need to protect the sovereign right of States to regulate their communications systems. We are convinced that the texts developed in New York and refined in Vienna can provide the foundation for consensus on a full set of principles at the next session of the Legal Sub-Committee.

A second area of particular concern to us is remote sensing. Progress is being made in attempting to formulate a legal framework which might be established to govern remote sensing of the earth by satellite. In our view such a framework, based primarily on the identification of common elements in the various proposals which have been put forward, should reflect a balance between the need to ensure the greatest possible benefits to the world community through remote-

(Mr. Barton, Canada)

sensing activities and the need to safeguard legitimate national interests.

Progress is also being made on the technical and scientific level as increasingly sophisticated radars are developed and remotely sensed data is found to have more and more applications. Where sufficient progress is not being made is on the organizational and political level. A number of delegations at the last meeting of the Committee on the Peaceful Uses of Outer Space expressed concern over the lack of co-ordination of the increasingly disparate remote-sensing efforts of a growing number of countries. As a result, my delegation proposed, and the Committee agreed, that the Scientific and Technical Sub-Committee should give high priority to questions relating to the co-ordination on a global basis of remote-sensing activities. This, we think, was a positive step, but a step that will be meaningless unless we are able to define more precisely what it is we want from remote sensing and how we should organize ourselves to realize our objective. In this connexion it is noteworthy that in its report the Scientific and Technical Sub-Committee encourages those countries contemplating the establishment of preoperational remote-sensing systems to consider their compatibility and complementarity with existing systems. Another idea which has been mooted in the past involves setting up a system or systems of internationally-owned satellites which would be co-ordinated by an international body, much like the World Weather Watch system of the World Meteorological Organization. That might be a good idea, and it might be a bad one. What we are saying is that the present situation calls for more ideas, for more imaginative and creative thinking, or the problems that we face in this area will become intractable. It would not augur well for the efforts of this Organization to break down the barriers which have separated nations for years if we were unable to avoid polarization in this new and developing field.

My delegation is pleased to note that some progress was also made during the last session of the Scientific and Technical Sub-Committee in regard to the technical definition of terms connected with remote sensing, including "data" and "information". Unfortunately, the Legal Sub-Committee was unable to make use of them in its efforts to agree on a legal régime to govern remote sensing. The Canadian delegation was therefore gratified that at its meeting in Vienna in

(Mr. Barton, Canada)

June the main Committee took a decision on this matter which is reflected in paragraph 39 of its report.

We are also pleased at the movement being shown in considering the question of holding a second United Nations conference on outer space. In our view, this is a question which requires more careful study - study of the subjects such a conference would address, how it would be co-ordinated with other conferences, and when it might most usefully be held and such organizational questions as financing. The establishment of a working party of the Scientific and Technical Sub-Committee to examine these questions is an important step, and we look forward to playing a constructive role in that working party under the capable and experienced guidance of Mr. Carver.

(Mr. Barton, Canada)

In that connexion I should like to recall that in paragraph 77 of the Committee's report mention was made of the desirability of Governments submitting to the Secretariat at an early stage their ideas and recommendations concerning this proposed conference. If such submissions are received sufficiently in advance of the consecutive meetings of the Scientific and Technical Sub-Committee and of this working party to be held next February, the preparation of a comprehensive report, despite the inevitable pressures of time, may still prove possible.

Before concluding, I should like to make a brief allusion to one passage in the speech given on 21 November by the Chairman of the Committee on the Peaceful Uses of Outer Space, Mr. Jankowitsch, in opening our debate. He referred at that time to the fact that the Outer Space Committee was not an "exclusive club" composed of Member States from the developed world. I should like to reiterate his sentiments and call for ever-increasing involvement in the work of the Committee by other Member States, particularly those from the developing world. Indeed, a number of countries have already availed themselves of opportunities to participate in the work of the Committee and its two sub-committees in an observer capacity. We would therefore wish to support the resolution submitted by the Austrian delegation calling for a study by the Committee itself of the means by which wider participation in its work might be facilitated, whether through an expansion of its membership or by other means. That having been said, it should perhaps be noted that one reason why the endeavours of the Committee to date have been accomplished in an efficacious manner is just because its membership, which while fully consonant with the principle of equitable geographic distribution, has been kept to a manageable size.

Finally, I would like to state that my delegation will be pleased to co-sponsor the omnibus resolution on the peaceful uses of outer space which is to be introduced by the Austrian delegation. The resolution makes very effectively the two points which have been the main theme of this statement, namely, that we note with considerable satisfaction the work which has been done but do so conscious of the work which remains yet to be done. It is my delegation's conviction that progress can be made during this next year, and in this collective effort I pledge our full support and co-operation.

Mr. KUNERALP (Turkey): In previous years my delegation has had the opportunity of stating its views on the questions which are on the agenda of the Outer Space Committee. Let it suffice for me to repeat once again that my delegation, although not a member of the Committee, is fully conscious of the importance of its objectives which are to contribute to the drafting of a comprehensive and equitable space law, on the one hand, and to promote a system of effective international co-operation so as to make space technology available to all countries, on the other.

For this reason, my delegation has studied with great interest the report of the Committee on the Peaceful Uses of Outer Space which met in Vienna from 20 June to 1 July 1977. In this connexion, I would like to express my delegation's congratulations to Mr. Jankowitsch, the Chairman of that Committee, and through him to all its members for the outstanding work that they have produced.

My delegation has noted with considerable satisfaction the progress made by the Committee during its last session on the various topics which are on its agenda. We have been particularly pleased to see that the Legal Sub-Committee is continuing its efforts on the elaboration of a draft treaty on the moon, and that its work on the preparation of principles governing the use by States of artificial earth satellites for direct television broadcasting has made possible the formulation of a draft preamble and of a provisional text on the item "consultation and agreements between States". Even though considerable advantages are to be reaped from the application of space technology to this field, this is a subject which has important implications for State sovereignty. As in previous years, my delegation therefore wishes to repeat that adequate safeguards for the protection of the sovereignty of States must be attained. We are confident that it will be possible to strike a balance between these two aspects of the question in the interests of the international community.

My delegation has also followed with great interest the work of the Legal Sub-Committee's Working Group on remote sensing which in our opinion can contribute substantially to the exploration of natural resources. However, as in the case of the use of artificial satellites for direct broadcasting, care should be taken not to infringe the sovereignty of States. Although

(Mr. Kunalalp, Turkey)

my delegation noted with regret the lack of success of the discussions on the dissemination of information which have taken place in the Scientific and Technical Sub-Committee of the Outer Space Committee, we were heartened to see that the Committee in its report states "there was no scientific or technical basis for a sensed State not having timely and non-discriminatory access to data concerning its territory." (A/32/20, para. 41)

My delegation wholeheartedly supports the draft resolution on the tenth anniversary of the entry into force of the Outer Space Treaty which is contained in A/C.1/32/L.39. As a country which was among the first to become a party to this Treaty, Turkey welcomes the call embodied in the draft resolution on all countries to ratify or accede to the Treaty as soon as possible. There is also great merit in the proposal for the Secretary-General to prepare a study of the experience gained in the first 10 years of the Treaty's application.

My delegation would like to express its support for the proposal to convene a United Nations conference on outer space. Such a conference would highlight the need for further co-operation between States in the peaceful application of technology to space. In this connexion, my delegation wishes to express its appreciation to the countries which have shown the will to co-operate in these matters and to those which contributed to the spreading of knowledge on space technology by granting fellowships to developing countries.

Finally, my delegation wishes to point out that it supports the thrust of the proposals submitted to this Committee, which aim at increasing the membership of the Outer Space Committee. The importance of the subjects which are on the agenda of the Committee is such that as many States as possible "belonging to all geographical groups represented in the Organization and which have expressed interest in becoming members of the Committee" should be enabled to do so. However, my delegation believes that that question should form the subject of a study by the Outer Space Committee itself, as proposed in draft resolution A/C.1/32/L.42 submitted by Austria. If this draft

(Mr. Kuneralp, Turkey)

resolution is adopted, we have no doubt that the report which the Outer Space Committee is called upon to submit to the thirty-third session of the General Assembly will contain a recommendation for the expansion of the membership of the Committee. My delegation, however, believes that in accordance with usual practice such a recommendation should come from the Outer Space Committee itself and not from outside.

Mr. ONDA (Japan): Mr. Chairman, at the outset my delegation wishes to express its satisfaction at the fact that under your wise guidance this Committee has been holding fruitful deliberations on the two agenda items relating to the peaceful uses of outer space. My delegation is convinced that the Committee will carry out successfully the important tasks entrusted to it by the thirty-second regular session of the General Assembly. My delegation would also like to take this opportunity to express its sincere appreciation to the Chairman of the Committee on the Peaceful Uses of Outer Space for his statement introducing the report of that Committee.

As previous speakers have recalled, this year is the twentieth anniversary of the first venture of mankind into outer space and also the tenth anniversary of the entry into force of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies.

Looking back over the past two decades, we all remember how spectacular achievements in the exploration of outer space came one after another. Needless to say, the United States of America and the Soviet Union have led the world in carrying out space exploration and remain the most advanced space nations.

In this short period the many applications of advanced space science and technology have begun to prove that they are capable of bringing enormous benefits to all mankind. Efforts are being made to promote these space applications in various fields, such as telecommunications, navigation, meteorology, remote sensing and so forth. My delegation believes that in these fields the United Nations has the very important role of creating an environment conducive to smooth applications of advanced space science and technology.

As for my country, we are determined to continue our efforts further to develop our own technology for the exploration and use of outer space for peaceful purposes and thereby make a considerable contribution to the enhancement of the economic and social welfare of all the countries of the world, particularly the developing countries.

In this connexion I should like to describe some aspects of space programmes in Japan.

Since the launching of the first Japanese satellite "Osumi" in 1970, Japan has successfully launched a total of 11 satellites, four for applications purposes and seven for scientific research.

(Mr. Onda, Japan)

The latest satellite for scientific research is the "Tansei III", which was launched by a "Mu-3H" launch vehicle from Kagoshima Space Centre last February for the purpose of verifying the capabilities of the launching vehicle.

In the same month, another satellite named Engineering Test Satellite II (ETS II) was launched by an "N" launch vehicle from Tanegashima Space Centre to acquire launching and tracking technology for geostationary satellites and to conduct propagation experiments of millimeter radio waves. This satellite became Japan's first geostationary satellite.

Several months later a Geostationary Meteorological Satellite (GMS) was launched by a "Delta" launch vehicle with the co-operation of the National Aeronautics Space Administration (NASA) of the United States of America. This satellite is intended to take photographs of cloud cover in the Western Pacific and Asian regions and to collect and distribute the meteorological data of these regions. We are convinced that this satellite (GMS) will contribute to the promotion of the Global Atmospheric Research Programme (GARP) under the World Weather Watch (WWW).

With regard to future programmes, Japan has already decided to launch six satellites for scientific research and seven satellites for applications purposes by the end of the Japanese 1981 fiscal year.

As a first step, a communication satellite called in Japan Medium-Capacity Communications Satellite for Experimental Purposes (CS) is scheduled to be launched next month. This satellite will conduct communication experiments on the quasimillimeter wave band to establish technologies for a satellite communications system in order to prepare for the increasing demand for these systems.

Next March the launching of a broadcasting satellite named Medium-Scale Broadcasting Satellite for Experimental Purposes (BS) is scheduled to conduct broadcasting experiments as a preliminary step towards the establishment of a satellite broadcasting system with both individual reception and community reception.

The two satellites (CS and BS) that I have just mentioned are geostationary satellites and are to be launched by a NASA launch vehicle in accordance with the Agreement of Co-operation between Japan and the United States of America concluded in May 1975.

(Mr. Onda, Japan)

As for the satellites for scientific research, Japan is planning to launch its second Ionosphere Sounding Satellite (ISS-b) next February to conduct observations of the ionosphere. Next January another scientific satellite called Exos-A will be launched in order to study the physics of aurora polaris and its related phenomena over the southern auroral region.

Turning to our plans related to remote sensing, Japan has been actively conducting research in the field of remote sensing data analysis through NASA's Landsat Follow-on Programme. The construction of a ground station for the purpose of the direct reception of Landsat data has started and its completion is scheduled by the end of next year. This ground station is designed to promote the research and development of our earth observation satellites system.

As for the Japanese earth observation satellite, the necessary research and development are now under way with the aim of launching it in the first half of the 1980s.

With regard to my country's share in international space co-operation, Japan, as a State member of the World Meteorological Organization (WMO), has actively participated in the Global Atmospheric Research Programmes (GARP) promoted jointly by WMO and the International Council of Scientific Union (ICSU). As I mentioned earlier, Japan launched a Geostationary Meteorological Satellite last July with the co-operation of NASA, and this is one of the five satellites which form the Global Observing System. The weather data obtained through GMS will be disseminated to other Asian and Western Pacific countries.

For the smooth operation of the GMS system it is necessary to maintain the satellite in the correct position using three Turn-around Ranging Stations (TARS). For this purpose Japan recently concluded with Australia an agreement for the installation of one of the TARS in Australia. In accordance with the agreement, Japan is to provide Australia with weather information more frequently in case of unusual or severe weather conditions.

Japan has also decided to participate in the First Spacelab Programme of NASA and the European Space Agency (ESA) with the Space Experiments with Particle Accelerators (SEPAC). The objective of SEPAC is to gain a better understanding of auroral emission, the behaviour of charged particles in plasma, the excitation of electromagnetic waves and so forth. Payload instruments, such as particle accelerators and diagnostic instruments, are now under development.

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(Mr. Onda, Japan)

Japan also carried out co-operative experiments with NASA and the Canadian Broadcasting Corporation (CBC) using a Canadian-United States Communications Satellite (CTS) and a small-sized antenna which was developed in Japan. A number of useful results were achieved in this experiment.

(Mr. Onoda Japan)

I should now like to make some comments on the items before us. First, with regard to the consideration of the draft treaty relating to the moon, the Legal Sub-Committee again this year could not resolve the three remaining issues, despite its renewed efforts to complete the drafting of the text. My delegation supports the Outer Space Committee's view that the Legal Sub-Committee at its next session should continue to consider, as a matter of high priority, the draft treaty relating to the moon, but my delegation wishes to express its hope that the gap between the diverging views held by various delegations on the questions related to the natural resources of the moon will be narrowed through further constructive deliberations.

Turning to the elaboration of principles governing the use by States of artificial earth satellites for direct television broadcasting, a tentative text of a principle on "consultation and agreements between States" and a draft preamble have been formulated this year as a result of the strenuous efforts of the Legal Sub-Committee and later of the Outer Space Committee.

Although the text to which I have referred is still under careful review by my Government, my delegation has taken note of the fact that the proposed tentative text is still within square brackets, along with a few proposed draft principles. In short, no agreement was reached on the proposed draft principle on "consultation and agreement between States", as indicated in paragraph 26 of the report of the Outer Space Committee. Under the circumstances my delegation welcomes the recommendation by the Outer Space Committee that, at its next session, the Legal Sub-Committee should again give high priority to the elaboration of principles relating to direct television broadcasting. My delegation is prepared to participate positively in the deliberations of the Sub-Committee for the purpose of seeking a generally acceptable text.

Another important area that requires an equitable balance between legal and technological considerations is the remote sensing of the earth by satellites. My delegation is pleased to note that the Legal Sub-Committee has succeeded this year in formulating the text of six additional draft principles, bringing the total number of draft principles relating to remote sensing to 11.

(Mr. Onda, Japan)

My delegation has no difficulty in endorsing the recommendation by the Outer Space Committee that the Legal Sub-Committee at its next session should continue, as a matter of high priority, to give detailed consideration to that subject with the aim of formulating draft principles relating to remote sensing. However, I should like to express once again my delegation's firm belief that the Legal Sub-Committee should continue, as in the past, to consider this subject on the basis of the common elements identified by the Sub-Committee. It is the view of my delegation that the over-hasty establishment of a rigid legal framework might become a hindrance to the smooth application of this promising new technology. In the interests of the entire world community, there should be no failure to recognize the vast potential of this great advance.

With regard to remote sensing, the Scientific and Technical Sub-Committee also made significant progress this year in defining the terms of "primary data" and "analysed information". My delegation attaches great importance to this work since it will be very useful to the Legal Sub-Committee in its further consideration of the legal implications of remote sensing.

As for the proposal advanced by a member of the Scientific and Technical Sub-Committee for the classification of remote sensing data into three categories - global, regional and local - on the basis of spatial resolution, my delegation is of the view that there is no adequate scientific or technical basis for such a classification. Therefore, my delegation supports the recommendation in paragraph 40 of the report of the Outer Space Committee that the Secretariat conduct a study on a scientific basis for a technical definition of spatial resolution.

Turning to the United Nations programme for space applications, my delegation appreciates the significance of the Organization's role in this area and therefore wishes to support its programmes on space applications for 1978, as proposed by the Expert on Space Applications. I would add in this connexion that Japan will offer a training programme on remote sensing technology next February for the benefit of developing countries in the Economic and Social Commission for Asia and the Pacific (ESCAP) region.

(Mr. Onda, Japan)

As for the question of a possible United Nations conference on outer space matters, my delegation has already expressed its belief that such a conference would be useful and helpful in stimulating international co-operation in space applications. We have pointed out, however, that a careful study should be made of the objectives of such a conference, the time and place it would be held, and other related questions before a decision is taken to convene it.

Therefore my delegation noted with satisfaction the conclusion of the Outer Space Committee that a task force of the Scientific and Technical Sub-Committee, open to all interested members of the Sub-Committee, should be established to deal with these matters.

Our Committee now has before it two draft resolutions (A/C.1/32/L.42 and A/C.1/32/L.43) relating to the question of enlarging the membership of the Outer Space Committee. My delegation regrets that no compromise solution of this question has been reached despite the efforts of some delegations.

My delegation believes that the strong desire expressed by some States Members of the United Nations to join the Outer Space Committee reflects the increasing recognition of the importance of the Committee's work which in my view should be welcomed.

My delegation also believes that it would be unwise to deny participation in the Outer Space Committee to those Member States which are willing to make real contributions to future outer space activities in the interests of all the States and all the people of the world.

However, I must admit that my delegation has some doubts about the desirability of a hasty decision to add so many members to the Committee, for fear that it might make it unwieldy.

The Austrian delegation has pointed out that the last expansion of the Outer Space Committee was approved in 1973 by consensus. Clearly the further enlargement of the Committee, as proposed by the delegation of Colombia and other delegations, could have important long-range effects on its usefulness, and deserves very serious study by all members of the Outer Space Committee. My delegation therefore supports the draft resolution introduced by the Austrian delegation which would give all of us enough time to consider every aspect of the Colombian draft proposal.

(Mr. Onda, Japan)

In conclusion, I wish to express my delegation's sincere appreciation to Mr. Lubos Perek, Chief of the Outer Space Affairs Division of the Secretariat, and the other members, as well as to Mr. H. G. S. Murthy, the Expert on Space Applications, for the excellent work they have done during the past year.

Mr. von WECHMAR (Federal Republic of Germany): This year will be remembered as an anniversary year as far as space matters are concerned. The Committee on the Peaceful Uses of Outer Space held its 20th meeting, this time enjoying the hospitality of the Austrian Government. During those 20 years the Committee, through its subsidiary bodies, has excelled in increasing the public understanding of the benefits of space technology and in working out a legal régime which further strengthens international co-operation. The Federal Republic of Germany, which became a member of the Outer Space Committee in 1973, has always followed its work with very keen interest and will do so also in the future. The Outer Space Committee has also set standards through its technique of work. Throughout all its sessions a spirit of goodwill and compromise has prevailed, thus making the principle of consensus a most effective method of work. My delegation, therefore, is pleased once again to enter into discussions in the First Committee on matters relating to outer space. We are grateful to Mr. Jankowitsch for his excellent introduction of the report which the Outer Space Committee has prepared under his leadership, and we would also like to thank the Chairmen of the two Sub-Committees, Mr. Wyzner and Mr. Carver, for their experienced guidance of the work in these bodies.

(Mr. von Wechmar, Federal
Republic of Germany)

Before I make a few comments on certain subjects in the report, I should like to mention some of the latest developments in the space programme of the Government of the Federal Republic of Germany.

The Federal Republic of Germany during the past year continued to contribute to a large extent to the joint programme within the European Space Agency (ESA).

In connexion with the satellites which were or are to be launched for ESA this year, I should like to mention first of all the meteorological satellite Meteosat and the satellites of the International Sun-Earth Explorer Programme. The former contributes to the Global Atmospheric Research Programme and is scheduled to be launched in November 1977. Two of the latter (ISEE A and B) were successfully launched in October 1977 and are operating normally. They serve for magnetospheric research in co-operation with the National Aeronautic and Space Agency (NASA). As for the European experimental telecommunication satellite OTS, a new launch with a spare satellite is foreseen for the first quarter of 1978. Steady progress can be reported with respect to the Spacelab Development Programme which is the European contribution to the reusable space transportation system of NASA, the space shuttle. My country is highly interested in the utilization of this system. The first European Spacelab payload has already been defined, and the first mission has been prepared intensively. Two other missions will be planned within the framework of the European Space Agency. The Federal Republic of Germany also prepares further experiments and equipment for Spacelab missions, especially in the area of material science and remote sensing.

The latest joint European achievement to be mentioned is the establishment of a European network for receiving remote-sensing data. A national airborne remote-sensing programme has provided practical experience with sensors to be used later in spacecraft.

Among the bilateral activities, Symphonie and Helios are already well known to members of the Committee from earlier reports. One of the Symphonie satellites has now been shifted to a position over the Indian Ocean to help in the preparation of an Indian communication satellite system.

(Mr. von Wechmar, Federal
Republic of Germany)

The valuable information about solar-terrestrial relations obtained by means of the solar probes Helios A and B is now to be complemented by correlation with the data provided by the Voyager probes during their journey to Jupiter.

Under the Jupiter orbiter and probe project planned in co-operation with NASA, the Federal Republic of Germany will provide scientific instruments for the investigation of the Jovian system and a retro-propulsion module for certain propulsion manoeuvres of the Jupiter orbiter probe.

We have studied the report of the twentieth session of the Committee on the Peaceful Uses of Outer Space very carefully. We notice with satisfaction that progress has been achieved again, less on some topics but more on others. As regards the work of the Legal Sub-Committee, the Outer Space Committee is of the opinion that three topics which have taken up most of the time of its deliberations should be considered with the same high priority by that Sub-Committee.

One of them is the draft treaty relating to the moon. During the discussions it became clear that the question of the natural resources of the moon continues to be considered one of the main issues still to be resolved. Although intensive efforts were undertaken to bridge the diverging viewpoints, consensus was not possible. It may still take a long time for the exploration and exploitation of the moon's resources to become a reality, but it is our task and responsibility to set the political and legal framework so that space technologies may be used for the benefit of all once the chance has become real. My delegation believes that efforts should continue in order to find common ground on which we may soon finalize this important international instrument. The draft treaty on the moon, therefore, should again have high priority in the forthcoming discussions.

The preparation of draft principles on direct television broadcasting satellites is one topic on which progress could be achieved. Both the Legal Sub-Committee and the Outer Space Committee - which, following a recommendation

(Mr. von Wechmar, Federal
Republic of Germany)

of that Sub-Committee, sat as a working party of the whole, - made headway, bringing us closer to a solution of the remaining problems. They have already looked at a draft preamble in detail. Various paragraphs were drafted, so that the draft preamble begins to take shape. For the time being we may leave open the question of what final form the legal instrument under discussion should take. At this stage my delegation is satisfied to see that two very important points have already been established in the draft preamble. One is the reference in the first preambular paragraph to individuals as receivers of the benefits of international direct television broadcasting by satellites. The other one is the recognition of the importance of the right of everyone to freedom of expression, including the right to seek, receive and impart information and ideas regardless of frontiers. Since this sentence repeats universal human rights enshrined in instruments of the United Nations, it should not be too difficult to delete the brackets still around this draft principle. My Government adheres consistently to the principle of free flow of information. Therefore we shall make every effort to ensure that the right of the individual to freedom of opinion and expression across frontiers has the place it deserves. We are convinced that with the introduction of this right of the individual into the draft preamble we shall make further headway along the road which the United Nations so nobly opened in 1948 with the Universal Declaration of Human Rights.

(Mr. von Wechmar, Federal
Republic of Germany)

This political principle of free flow of information is also the yardstick by which we measure the draft principle on "consultation and agreements between States", which is the most difficult one on which to reach consensus. We draw a very clear line between the universal recognition of the political principle of free flow of information and its technical implementation. As for the technical questions, the International Telecommunication Union has allocated the limited radio frequencies in the 11.7 to 12.5 GH band available for satellite broadcasting. It is obvious that the concerns expressed by some States about unrestricted use of satellite broadcasting are no longer real.

In the light of the drafting of a principle of "consultation and agreements between States", my delegation is of the opinion that the principle of "duty and right to consult" should be reconsidered. It appears logical that we shall also have to look at all the principles, once the drafting operation has been fulfilled, in order to avoid redundancies and to improve the general context. Subject to these short remarks, my delegation can support the recommendation that the elaboration of principles for direct television broadcasting satellites should continue to be considered as a matter of high priority.

I should now like to make a few comments on the work of the Legal Sub-Committee with respect to remote sensing of the earth from outer space. My Government takes the view that the actual state of international law does not impose any regulations, not to speak of restrictions, on remote sensing of the earth and its environment. On the other hand, as the technology of remote sensing develops more and more, there is an increasing interest of States, and in particular of developing countries, in this new space technology. Therefore, we believe that in formulating draft principles on remote sensing a very careful and flexible approach should be taken. In particular, we believe that international co-operation should rest upon the concept of free collection of information and its free dissemination. We welcome the progress made by the Legal Sub-Committee in formulating the text of additional draft principles. We understand the

(Mr. von Wechmar, Federal
Republic of Germany)

concern of those who expect economic disadvantages through the use of information obtained by remote sensing. But these fears cannot be dispelled by trying to extend the concept of State sovereignty over national resources to information concerning these resources. These concerns should and can be accommodated by conducting remote sensing through intensive, international partnership and timely and non-discriminatory access to this information. We have taken note with satisfaction that the important issue of remote sensing once again should be treated with the same high priority.

Speaking of free dissemination of information, I should like to seize this opportunity to correct erroneous remarks which one delegation made this morning. The German firm which was mentioned is a private company which engages in enterprises for the peaceful uses of outer space in co-operation with an African developing country on a private commercial basis. Let me repeat in this context that my Government has always been a stout partisan of the exclusively peaceful uses of outer space.

As for the definition and/or delimitation of outer space, my delegation thinks that the time has come to take a closer look at this topic. Both Sub-Committees have dealt with this question and produced excellent results. We should ask both sub-committees to continue this work in close co-operation and to prepare a realistic solution. The Outer Space Committee should also take into consideration the question of the geostationary orbit. My delegation is of the opinion that the geostationary orbit is a part of outer space. Of course, we should ensure that all States may utilize the geostationary orbit on an equal footing. Work on these questions should therefore continue in the Legal Sub-Committee.

I should also like to draw the attention of members to the report of the Scientific and Technical Sub-Committee. The issue of remote sensing took up quite some time of the deliberations of the Scientific and Technical Sub-Committee. The Sub-Committee succeeded, among other things, in defining the terms "primary data" and "analysed information" and recommended the adoption of these terms by the Legal Sub-Committee. My delegation feels that this is a good example of close co-operation between the two sub-committees. In our view, the Scientific and Technical Sub-Committee could provide most valuable help to the Legal Sub-Committee by furnishing technical and scientific information whenever this may assist the Legal Sub-Committee in its legal and political discussions.

(Mr. von Wechmar, Federal
Republic of Germany)

We also noted with great interest that the Scientific and Technical Sub-Committee agreed to include as a future point of discussion the question of detecting and monitoring pollution of the environment by means of remote sensing from space. My Government has already given this problem intensive consideration. We are in the process of developing and also testing the necessary measuring equipment most of which will be used from the Spacelab. We have informed the Secretariat of details to be taken into account in a document which will be submitted to the Scientific and Technical Sub-Committee.

Another important subject dealt with by the Scientific and Technical Sub-Committee is the possible organization of a United Nations conference on space matters. Since views continue to differ widely on the concept of such a conference, the Outer Space Committee came to the conclusion that a task force of the Scientific and Technical Sub-Committee should be established which would be open to all interested Member States. My delegation believes that we should follow this recommendation. We could then have a thorough study of all the aspects involved, which will enable us to reach a decision on whether to go ahead with such a far-reaching undertaking.

The Austrian delegation has just submitted a draft resolution concerning the possible enlargement of the Committee on the Peaceful Uses of Outer Space. Considering the complexity and technicality of the questions discussed in that Committee, my delegation believes that this problem should be thoroughly examined. It is my opinion, therefore, that the most competent body to do this would be the Outer Space Committee itself. That is why my delegation fully supports the Austrian proposal.

We have before us a draft omnibus resolution very ably prepared by the Austrian delegation. My delegation is pleased to support this draft resolution not only because we approve of the work already done by the Outer Space Committee, but also because we are deeply convinced of the necessity to carry on the work in the future. We are dealing with new technologies to explore and exploit outer space. Put to peaceful uses, these technologies will significantly improve life for all the peoples of the world.

Mr. ISSRAELYAN (Union of Soviet Socialist Republics) (interpretation from Russian): This year the First Committee is considering the question of international co-operation in the peaceful uses of outer space immediately after its consideration of the agenda items dealing with disarmament.

As was stressed by the General-Secretary of the Central Committee of Communist Party of the Union of Soviet Socialist Republics and Chairman of the Presidium of the Supreme Soviet of the Union of Soviet Socialist Republics, Leonid I. Brezhnev, on 2 November this year:

"If it is possible to solve the major problems to avoid a new world war and to secure a lasting peace, it will open up new and remarkable prospects for the inhabitants of the earth. New conditions will be established for solving many other vital and important problems which face mankind as a whole."

(Mr. Issraelyan, USSR)

Without any doubt among those problems is that of the use of space for peaceful purposes. Twenty years ago on 4 October 1957 the Soviet artificial earth satellite, the first in the world, was launched into space. That began a new era in the history of mankind, the space era, and the Soviet Union was a pioneer in this magnificent achievement. In this regard the Soviet delegation would like to express its appreciation to all delegations which, in the course of the First Committee's work, have congratulated the Soviet Union on this noteworthy anniversary.

Space flight today has become a fully-fledged branch of the national economy of the USSR. Success in the conquest of space has to a growing extent been connected with the practical use of the achievements of space flight for the purposes of development of the economy, science and culture, that is, for the every-day needs of man.

Since 1967 a space meteorological service has been operating in our country thanks to communications satellites and earth orbit stations. In a short space of time the audience for central television in the Soviet Union increased by dozens of millions of people. Artificial earth satellites are being used more and more for geology, oceanography, forestry and agriculture.

The Soviet Union from the very beginning of the space age has been a proponent of co-operation between States in the conquest of space. An example of the effectiveness of such co-operation has been the programme of the socialist countries known as INTERCOSMOS. Within the framework of this programme there has been successful joint research in the field of space physics, meteorology, communications, biology and medicine and also remote sensing of earth.

On 13 July 1976 an agreement was signed by Bulgaria, Hungary, the German Democratic Republic, the Republic of Cuba, the Mongolian People's Republic, Poland, Romania, the Soviet Union and Czechoslovakia, on co-operation in research into and use of outer space and that has been operating successfully. Pursuant to that agreement, among other things, the first applicants for posts as astronauts from socialist countries have embarked upon their training. Co-operation between the Soviet Union on the basis of bilateral agreements with India, France, Sweden and the United States has been proceeding successfully.

(Mr. Issraelyan, USSR)

We were and still are active supporters of comprehensive development and the strengthening of international co-operation in research into and the use of outer space for peaceful purposes.

Guided as we are by the provisions of the 1967 Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, the Soviet Union is ready to share its knowledge and experience with the international community and with all interested countries, particularly in so far as, for example, remote sensing of the earth from space is concerned.

As members know, the Soviet Union stated in February of this year that on the basis of appropriate agreements it was ready to co-operate with interested States in carrying out space photography of their territories and transmitting to them the information obtained in that way. Those agreements will be implemented on the basis of equality and in accordance with international law, with respect for the inalienable right of States to exercise permanent sovereignty over their own natural resources, including the right to dispose of their own natural resources and information pertaining thereto. The use of this promising technology will promote an improvement in the economies of countries which find it appropriate to conclude such agreements.

Universality is an inherent attribute of space research and this by its very essence has already created good conditions for international co-operation. There is nothing surprising in the fact that, in the year which has passed since the discussion of questions pertaining to research into and the use of outer space at the last session of the General Assembly, international co-operation in this field has taken a new step forward.

In assessing the work of the United Nations Committee on Outer Space in 1977, it should be pointed out that the Committee and its organs have made progress in their work on a number of important questions, as is quite rightly pointed out in the relevant draft resolution. At the same time, some problems still remain unresolved. These include, as members know, the draft treaty on the moon. The Soviet delegation believes that given goodwill and a desire to conclude work on that draft treaty, the Legal Sub-Committee could bring about the necessary consensus.

(Mr. Issraelyan, USSR)

It seems to us that the most appropriate way of resolving issues relating to the natural resources of the moon would be to regulate them in a separate protocol to the treaty. However, we would be ready to co-operate with other delegations on the basis of other proposals also, because we believe that whatever the decision arrived at, it must in any case be in keeping with the interests of all countries and peoples on earth.

Another draft on which work remains to be concluded is that pertaining to the principles of direct television broadcasting. But even here a certain amount of progress has been made. Soviet delegations in United Nations bodies on space have been pursuing a constructive course of accommodating our partners. Unfortunately, our efforts have not always met with an adequate response and I believe that this is precisely the explanation for the fact that at the sessions of the Legal Sub-Committee and the Outer Space Committee this year it did not prove possible to conclude work on the draft principles to govern direct television broadcasting.

The well-known proposals of the Soviet delegation in the Legal Sub-Committee in the course of the discussion of the principles of remote sensing of the earth from space have met with certain support. We would like to hope that our initiative will help the Committee to move forward in the work of international legal regulation of the dissemination of data obtained by remote earth sensing.

We note with satisfaction that the work of the Legal Sub-Committee in the field of remote sensing of the earth has been reinforced by the Scientific and Technical Sub-Committee which is continuing to work out scientific and technological criteria for the data from remote sensing, the dissemination of which should be subject to strict regulation. That is a need which is becoming clear to a majority of countries, which in one way or another have an interest in deriving benefit from the tremendous advantages offered by remote earth sensing.

(Mr. Issraelyan, USSR)

Recently within the United Nations there has been more and more active discussion of the question of the use of geostationary orbit for the placement of satellites and certain delegations have even expressed the idea that it was necessary to extend sovereignty to segments of this orbit, segments which were over the territory of the countries concerned.

We understand the importance of these questions and we would once again like to state our position. We are definitely in favour of the regulation of the problems connected with the use of geostationary orbit within an international legal context. However, we categorically oppose attempts by any means whatsoever to appropriate any segments of outer space whether it be by means of proclaiming sovereignty over them or by any other means. Such attempts undermine the very foundations of international space law.

(Mr. Issraelyan, USSR)

The date of 10 October 1977 marked the tenth anniversary of the entry into force of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies. As we know, the Outer Space Committee submitted an appropriate draft resolution to the General Assembly for its consideration and adoption, at its thirty-second session. This draft resolution, A/C.1/32/L.39 and Corr.1, inter alia, confirms:

"... the great importance of the Treaty for the development of international co-operation in the peaceful exploration and use of outer space, including the moon and other celestial bodies, and for developing the rule of law in this sphere of human activity,"

It expresses:

"... the belief that the participation in the Treaty of all States and the application of this international instrument by them can contribute to enhancing the effectiveness of international co-operation in the peaceful exploration and use of outer space, including the moon and other celestial bodies,".

We support this draft resolution and wish to express the hope that it will be adopted by consensus.

As to the wish expressed by a number of delegations to expand the membership of the Space Committee, the Soviet delegation believes that this question can best be resolved on the basis of draft resolution A/C.1/32/L.42 submitted by Austria. We appeal to the sponsors of the other resolution on this question to show a spirit of co-operation and to make it possible for the Outer Space Committee to consider this important and highly responsible question.

In conclusion, I should like on behalf of the delegation of the USSR to thank the Government and people of the Republic of Austria for their invitation to hold the twentieth anniversary of the Outer Space Committee in Vienna and also for their hospitality to the participants in that session.

I should also like to express the hope that the General Assembly at its thirty-second session will take decisions which will facilitate a speedy solution of the problems which arise in connexion with the conquest of space.

Mrs. SUNDBERG (Sweden): Twenty years have elapsed since man took his first step into outer space when the Soviet Union launched the first satellite, the famous Sputnik. In 1961 Yuri Gagarin became the first man ever in outer space. Eight years later, in 1969, the American astronauts Armstrong and Aldrin were the first men to land on the moon. Last year the American Viking space craft landed on Mars.

We have almost grown used to spectacular events and achievements. The rapid development of outer space technology has, however, changed emphasis from scientific exploration and experiments towards exploitation and use of space technology for practical purposes to meet the needs on earth. Scientific observation satellites were the starting point for the development of meteorological satellites and, later remote sensing satellites such as the American Landsat.

Another field where satellites have become increasingly important is telecommunications. The American Early Bird became the first satellite of INTELSAT, the first international organization to be formed for the use of space techniques. The Soviet Molnya satellites became the basis of the Intersputnik Organization.

Looking ahead the use of space technology will be increasingly concentrated on practical application. Communication satellites will probably be used increasingly for mobile services. The conclusion of the agreement on INMARSAT is an example of this trend. Navigation will be another field of application. Direct broadcasting satellites will be put into use, above all for the development of television services. Remote sensing satellites will be used more widely with a refined technique.

Space transportation techniques will take a significant step forward with the space shuttle. This system will make it possible to put bigger satellites into orbit which will be of importance for communications and remote sensing capability. Experiment with zero gravity materials processing will be possible, and the new means of transportation will open up the possibilities of constructing large space stations.

(Mrs. Sundberg, Sweden)

The United Nations took up the question of outer space from the very beginning and this year the United Nations Committee on the Peaceful Uses of Outer Space held its twentieth anniversary session in Vienna. I should like to take this opportunity to thank the Austrian Government for the excellent arrangements and the warm hospitality around which marked the meeting. The fact that the meeting was opened by His Excellency the Federal President of Austria, gave a particular solemnity to the commemoration of the twentieth anniversary of man's first venture into outer space and the creation of the United Nations Committee on Outer Space. The Austrian Government has clearly illustrated the importance it is attaching to the Outer Space Committee. The fact that Austria has the chair of the Committee - a task that Mr. Jankowitsch is fulfilling so brilliantly and before him, among others, the Secretary-General of the United Nations - illustrates the importance of the Committee and Austria's confidence in it.

In this connexion, I should also like to express my delegation's sincere appreciation and gratitude to the chairmen of the two sub-committees, Mr. Carver of Australia and Mr. Wyzner of Poland, as well as to the chairmen of the working groups established by the Legal Sub-Committee.

The United Nations Outer Space Committee has an unprecedented record of successful elaboration of international agreements. The most important one is the United Nations Treaty of 1967 on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the moon and other Celestial Bodies. This year is the tenth anniversary of the entry into force of the Treaty. We welcome and support the draft resolution to mark this occasion.

The outer space Treaty is the fundamental legal instrument for the exploration and use of outer space. The aim of the Treaty - as laid down particularly in article III - is that States shall carry on activities in outer space in accordance with international law and:

"... in the interest of maintaining international peace and security and promoting international co-operation and understanding". (General Assembly resolution 2222 (XXI) annex, article III)

(Mrs. Sundberg, Sweden)

With this clearly stated objective as a background, it is with concern that we have noticed reports in the press which seem to indicate an ongoing development of techniques aimed at destroying satellites or putting them out of function - "killer satellites", as they have been called.

Are such activities really in accordance with the outer-space Treaty? The introduction of the techniques referred to could bring with it negative consequences for the peaceful development of outer space. Outer space must not be the new battlefield.

The exploration and use of outer space has hitherto been a domain of peaceful development and international co-operation. We must assure that it remains so in the future also. The United Nations, and in particular its Outer Space Committee, has a special responsibility to follow this closely and to consider how to keep outer space free from conflicts.

The Outer Space Committee and its two sub-committees have important items on their agenda. It would be going too far to comment in detail on all of them. I shall therefore limit myself to some general remarks on the most important questions.

This year special attention has been given to the question of direct television broadcasting by satellite. We had hoped that it would be possible to fulfil the mandate given to the Legal Sub-Committee by the General Assembly last year - namely, to conclude work on the principles governing the use of direct broadcast satellites. Unfortunately that was not possible, but the considerable progress made this year gives reason to hope that the spirit of compromise necessary to achieve this goal will be shown in the Legal Sub-Committee.

The techniques of direct television broadcast satellites has been demonstrated by the Indian-American SITE experiment and the Canadian Communications Technology Satellite. The day when direct broadcast satellites will be in operational use approaches rapidly as awareness of the potential benefits increases. In this context I should like to mention the investigation on the possibilities of establishing common television services in the Nordic countries based on direct broadcasting satellites, the so-called NORDSAT system.

(Mrs. Sundberg, Sweden)

In February of this year the World Administrative Radio Conference of the International Telecommunication Union (ITU) adopted a plan for direct broadcast satellites in the 12 GHz frequency band for regions 1 and 2. This means that direct television broadcasting by satellite can be undertaken only in accordance with this plan. Consequently, a direct broadcasting satellite service directed specifically to another State requires permission and co-ordination within the framework of ITU. It does not, however, mean that there is no longer any need for the United Nations principles. The WARC plan of 1977 is limited to two regions and to one frequency band only. For higher frequency bands allocated to direct broadcast satellites, no plans have been adopted so far. We hope that ITU will adopt plans for these bands also when the need arises. The technical ITU regulations contain a certain guarantee to that effect, but in our opinion United Nations principles are needed to provide a general political framework for the adoption of similar plans for the higher bands also so that a direct broadcasting satellite service in any band specially directed at a foreign State will be based on an appropriate agreement.

Canada and Sweden put forward a package proposal in the Legal Sub-Committee this year covering the most important outstanding issues. The package consists of three parts: first, a principle on consultation and agreements between States replacing the texts on prior consent as well as on the duty and the right to consult; secondly, a preamble; thirdly, a proposal to delete the proposed principles on programme content and unlawful broadcasts. The principle on the duty and the right to consult will, as I just said, be covered by the principle on consultation and agreements between States and is thus no longer necessary.

Allow me to dwell for a few moments on the development of discussions on these matters. In the Legal Sub-Committee and in the Committee itself during its meeting in Vienna substantial progress has been made concerning the principle on consultations and agreements between States. We now have a tentative text that takes account of the concern that direct broadcasting satellites will be misused in broadcasting to other countries. A service having such an aim can, according to this text, be established only when it accords with

(Mrs. Sundberg, Sweden)

the relevant ITU provisions, notably the 1977 WARC plan, and shall be based on agreements and/or arrangements between the broadcasting and receiving States or their duly authorized broadcasting organizations. Before such an arrangement is concluded the prospective receiving State should be notified and consultations should be held.

It is clear that this principle must not undermine any of the ITU provisions. It should, on the contrary, reaffirm them. That is why we think it is necessary to confirm that the principle does not apply to the spill-over permitted within the limits established by ITU. Such limits were established in the 1977 WARC plan. Any formulation that does not cover that aspect fully will not be acceptable to my country. We cannot in one part of the principle confirm the ITU provisions and in another undermine them. A formulation that puts in doubt the ITU provisions opens a dangerous path to unnecessary disputes.

Considerable progress has also been made concerning the preamble. It has now been accepted by the Committee that the United Nations principles will apply only to a television service specifically aimed at a foreign State. It should be possible to solve the outstanding issues in a final compromise.

The proposals on programme content and unlawful broadcasts will be superfluous if a principle on consultation and agreements is accepted. This is the case also with the principle of the duty and the right to consult. All cases in which consultations are needed are or will be covered by other principles and the ITU provisions. A separate principle on consultations is this redundant.

Remote sensing of the earth from outer space is a question that is on the agendas of both the scientific and the legal sub-committees. Sweden has on a number of occasions emphasized that there should be better co-ordination between the two sub-committees so that this highly technical issue will be properly clarified before any decisions are taken on legal aspects. A better knowledge of the facts will make it easier to solve the problems involved. That is why we think that the definition of data and information worked out by the Scientific and Technical Sub-Committee should now be accepted by the Legal Sub-Committee. With such a definition it would also be clear exactly

(Mrs. Sundberg, Sweden)

what can be covered by an agreed legal régime. This should simplify the task of the Legal Sub-Committee considerably. We also think there is good reason to continue the efforts to explore possible problem areas in order to decide where an international solution is warranted or some action on an international level is necessary.

Sweden has for a number of years advocated the establishment of an international organizational framework for remote sensing. This is, as we see it, the only way to assure that the benefits of this new and promising technique will be shared by all countries and to control its use so that misuse can be avoided. We still believe this is the right way to proceed to achieve a satisfactory international solution. As a good example, we may mention the World Weather Watch Programme of the World Meteorological Organization for the use of meteorological satellites.

(Mrs. Sundberg, Sweden)

We welcome the measures taken by the Outer Space Committee to establish two centres for the United Nations activities in the field of remote sensing. Further measures should be taken to stimulate international co-ordination, and here the United Nations has an important role to play.

The concentration of technology among a few countries can give rise to particular problems as far as remote sensing is concerned. An undeniable fact is that a sensing State will always be in possession of all data collected by its own remote sensing satellites, while other States, not possessing satellites, do not have an automatic access to such information. This inequality should be balanced, and we believe that the maximum benefit for all can be secured by arranging for as free and timely availability of data as possible on reasonable terms for all countries.

The problem and interests of the developing countries should be given particular attention. The formation of an international body would make this possible. International co-operation and participation would be assured and prevention of misuse guaranteed.

We should also assist the developing countries in building up their own capacity to use remote sensing. Here the United Nations Space Applications Programme and other activities merit particular attention. We note with satisfaction the valuable work carried out by the United Nations Expert on Space Applications and the effective manner in which he is implementing the United Nations Programme with the limited funds available. The Programme should be expanded considerably in order to help the developing countries to use space techniques.

In order to show its support my Government has put \$50,000 at the disposal of the Programme for the first on-site training seminar to be held in Kenya in 1978.

An important item on the agenda of the Outer Space Committee is the question of a moon treaty. We believe that a solution of this question should be based on the concept that all nations, regardless of their level of development, should enjoy equally the fruits of exploitation of the natural resources of the moon and other celestial bodies as those resources should be regarded as the common heritage of mankind.

(Mrs. Sundberg, Sweden)

The question of holding a United Nations conference on outer space was discussed extensively at the last meeting of the Committee. We share the view and support the proposal that a task force should be established to look into all the issues involved. The task force should explore the feasibility and usefulness of holding a United Nations conference on outer space. This will represent an advance in the consideration of the question but would not prejudge the timing of any such conference.

Before concluding, I should like to express our gratitude to the Secretariat and its head, Mr. Perek, for their many valuable studies and reports, as well as their untiring work to assist the work of the Outer Space Committee and its two Sub-Committees.

Mr. MARKER (Pakistan): My delegation has read with the greatest interest the report of the Committee on the Peaceful Uses of Outer Space in document A/32/20, and takes this opportunity to convey its warmest appreciation to the members of the Committee, and in particular to its Chairman, Mr. Peter Jankowitsch of Austria, and its Rapporteur, Mr. Lindenberg Sette of Brazil.

My delegation would also wish to record its warm appreciation of the skilful manner in which Mr. Carver of Australia steered the deliberations of the Scientific and Technical Sub-Committee, and to Mr. Wyzner of Poland who chaired the Legal Sub-Committee with such distinction for so many years.

Pakistan attaches great importance to the work of the two Sub-Committees, the Legal Sub-Committee and the Scientific and Technical Sub-Committee, and my delegation would wish at this stage to submit a few comments on the useful work performed by both these bodies.

On the draft treaty relating to the moon, my delegation notes that some progress remains to be made in finalizing the draft treaty, and that at present there are difficulties in connexion with the terminology "common heritage of mankind" used in the text. In this connexion, my delegation supports the request made from some other delegations for a fuller meaning and the implications of this terminology.

(Mr. Marker, Pakistan)

On the subject of the elaboration of principles governing the use by States of artificial earth satellites for direct television broadcasting, my delegation finds itself in general agreement with the preamble and paragraphs 1 and 2 of the draft "Consultation and agreements between States". With regard to paragraph 3, Pakistan has serious reservations about the present formulation and we feel that this should be suitably modified to ensure that the phenomenon of "spill over", and other connected radiation problems, are not put to abuse for making unauthorized television broadcasts to neighbouring States. Pakistan feels that this precaution is particularly important for safeguarding the interest of smaller countries which have larger countries in the neighbourhood, and especially when the larger countries possess very well-developed space technology. Furthermore, the Pakistan delegation supports the viewpoint that the co-ordinating role of the United Nations in this area should extend not only to future operational remote sensing satellites, but also to the pre-operational and experimental satellites, particularly so as to ensure that all nations get the full benefits of this technology, and to co-ordinate further the standardization of ground receiving equipment, as well as the equipment for the analysis and interpretation of the data so received. The role of the United Nations can become very vital in ensuring the world-wide distribution of data obtained from the satellites and as a result of the standardization of receiving equipment.

So far as the remote sensing of the earth from space is concerned, Pakistan supports the concept of completely free dissemination of remotely sensed data to all countries of the world, even in cases where the data is of high resolution, such as 30 metres or better.

Pakistan fully supports the position that the definition and delimitation of outer space and outer space activities need to be resolved as soon as possible. Such a solution not only would help in exercising control by an international body of the future on the activities in space of Member States,

(Mr. Marker, Pakistan)

but also would help in some measure to control and monitor the use of space technology for military purposes. In this context, Pakistan reiterates its stand that in order to ensure that the activities of Member States are confined to peaceful uses alone, an international organization such as the International Space Agency should be set up under the aegis of the United Nations, and patterned on lines similar to the International Atomic Energy Agency.

If there is an inadequacy of funds at present at the disposal of the United Nations Outer Space Committee, then measures should be taken to rectify this shortage, and meanwhile, as a first step, the Pakistan delegation would urge the need for the United Nations to play a stronger co-ordinating role in the application of space programmes for peaceful purposes.

My delegation has read with interest the paper circulated by the Soviet delegation during the twentieth session of the Committee on the Peaceful Uses of Outer Space on the questions relating to geostationary orbits. My delegation expresses the hope that the Scientific and Technical Sub-Committee will be able to examine at its fifteenth session the physical nature and technical attributes of the geostationary orbit, with a view to enabling the study of all its aspects for its utilization, as has already been recommended by the Committee.

(Mr. Marker, Pakistan)

The Pakistan delegation supports the idea of holding a United Nations conference devoted exclusively to dealing with outer space matters. We note with satisfaction the preliminary steps taken in that connexion, such as the composition of the task force which was recommended by the Scientific and Technical Sub-Committee. We understand that this task force, whose membership will be open to all the members of the Outer Space Committee, would meet at the time of the holding of the fifteenth session of the Scientific and Technical Sub-Committee, and we wish to assure the members of this Committee that the Pakistan delegation will do its best to ensure a substantive and constructive contribution to the deliberations of that task force.

The CHAIRMAN: I should like to announce that Portugal and the United Republic of Cameroon have joined in sponsoring the draft resolution contained in document A/C.1/32/L.43.

The meeting rose at 6.25 p.m.

