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COMMITTEE ON THE PEACEFUL USES OF OUTER SPACE  
VERBATIM RECORD OF THE ONE HUNDRED AND EIGHTY-FOURTH MEETING

Held at Headquarters, New York,  
on Friday, 30 June 1978, at 10.30 a.m.

Chairman: Mr. JANKOWITSCH (Austria)

General debate (continued)

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The meeting was called to order at 11 a.m.

GENERAL DEBATE (continued)

Mr. CARRASCO (Chile) (interpretation from Spanish): Mr. Chairman, the Chilean delegation is very pleased to see you presiding over our meetings, since your well recognized experience and ability are sure to contribute to the progress of our debates at this session.

May I also take this opportunity to welcome the new members which have been appointed to the Committee on Outer Space and which have already had an opportunity to take part in the activities of our two Sub-Committees. Their interest in participating in our work and thus augmenting the number of members of the Committee by 10, bringing it to a total of 47 Member States, is the clearest indication that activities in the exploration and utilization of outer space for peaceful purposes are daily assuming greater importance for mankind as a whole, provided that the resources obtained from those activities be distributed fairly among all human beings as a heritage to which everyone has equal access.

(Mr. Carrasco, Chile)

Space science and space technology are being enriched every year with new discoveries considerably increasing our knowledge of outer space. This makes it possible, especially for the space Powers, to improve existing, sophisticated space exploration techniques for undertaking new experiments which astound the world with their achievements. This makes it possible also to improve their application in the field of telecommunications, remote sensing, meteorology and many other technical activities which help to enhance the well-being and development of the world community.

The visible progress which has been analysed at each session of this Committee is quite evident and is a clear indication that man's mastery of outer space opens up infinite possibilities, particularly for those States that can devote huge budgets to this type of research. This makes it plainly imperative for all countries, especially the developing countries, which cannot engage in this rivalry in the conquest of space, to work throughout our deliberations for the achievement of objectives pertaining to the right of nations to share equally in the benefits from the resources of outer space and staunchly to uphold all of the great principles inspiring the Charter of the United Nations.

One such objective is a constant growth in international co-operation in the dissemination of space information as well as in aspects of technological training which will allow all States to aspire to an active and effective participation in programmes of potential benefit to them.

We most sincerely commend the efforts of those countries that are engaged in activities involving research on and the exploration and use of outer space. They are indeed contributing to the progress of human life on this planet.

I wish now to refer briefly to some issues before the Committee at this session and which my delegation considers of fundamental importance.

(Mr. Carrasco, Chile)

With respect to the draft treaty relating to the moon, at the seventeenth session of the Legal Sub-Committee, which took place in Geneva from 13 March to 7 April this year, the Austrian delegation proposed a new text for the draft treaty relating to the moon, which is contained in annex I to the report of that Sub-Committee (A/AC.105/218). We are grateful to the delegation of Austria for its important contribution in this matter, which my Government believes to be an excellent basis for achieving consensus.

My delegation would like to repeat here that it favours the extension of the concept of the common heritage of mankind to the natural resources of the moon, as well as of other celestial bodies. Incidentally, this is a widely-shared concept and is contained in article XI of the Austrian text.

As for direct television broadcasting, this subject has been under discussion in the Legal Sub-Committee. In this connexion, my delegation believes that at present the International Telecommunications Union (ITU) agreements are inadequate and that initiatives must be taken which can be translated into a final and explicit recognition of the principle of prior consent by the receiving State in matters of direct broadcasting.

I turn now to the legal implications of the remote sensing of the earth from outer space. On several earlier occasions my delegation has maintained that in regulating the activities of remote sensing it is most important to respect the sovereignty of States in disseminating the data obtained in this manner, and that one must secure the prior consent of those States when such data is considered to be for their exclusive use and whose dissemination might be against their own interests. My delegation referred to this matter at length this year at the fifteenth session of the Scientific and Technical Sub-Committee.

With respect to the utilization of nuclear Power sources in outer space, both the Scientific and Technical Sub-Committee and the Legal Sub-Committee have discussed this question, and it has been the subject of lengthy debates. Several delegations have put forward suggestions for the regulation of the legal aspects of the use of nuclear energy in spacecraft and have

(Mr. Carrasco, Chile)

maintained the need for a revision of current international instruments in order to determine whether or not they offer proper guarantees of the safety of nuclear energy powered satellites especially as regards notification procedures.

My delegation is of the view that our Sub-Committees should continue to discuss this question, as should this Committee. This is a question of equal interest to all States because of its potential consequences to the environment, with all the danger they entail.

As to the convening of a United Nations conference on outer space, my Government had occasion to reply in detail to the questions put to us on this matter, as can be seen in document A/AC.105/142/Add.8, and I wish to take this opportunity to reiterate that we consider it necessary to convene a conference on this question at an early date, preferably at Headquarters.

Those are some of the general comments that my delegation wished to make. In any event, when other agenda items come under discussion, my delegation will refer to them in due course.

Mr. HOGHTADERI (Iran): Mr. Chairman, the many accomplishments of this Committee and its organs, as reflected in the reports of the Legal Sub-Committee and the Scientific and Technical Sub-Committee, are continued testimony to your effective leadership.

We are indeed fortunate that the Committee on the Peaceful Uses of Outer Space has been able to address itself to the substantive issues that attend the dramatic progress in space technology and its applications. This week we have witnessed co-operation between two Member States of the Committee in the launching of SOYUZ-30, with a Polish cosmonaut and a Soviet commander aboard. The relevance of our deliberations to the rapidly advancing technology of space applications is clearly demonstrated by these and other activities.

The Soviet cosmonauts in the orbiting SALYUT-6 and the crew of the SOYUZ-30 are dramatic evidence that space applications are developing into an accepted form of international endeavour.



(Mr. Moghtaderi, Iran)

The United States shuttle orbiter "Enterprise", being readied for launching next year, is already booked until 1981 with internationally sponsored programmes. Iran is one of those States whose scientific efforts will be advanced through this shuttle.

It is essential that the progress of our Committee keep pace with the progress of technology. Space utilization and exploration are no longer the pursuits of one or two highly developed nations, but properly occupy many of our Member States.

We support the broadened participation which has been made possible by General Assembly resolution 32/196, and the discussion of the matters to which we address ourselves will benefit from the more equitable geographical representation which we now have.

In considering the matters pertaining to the draft treaty relating to the moon, the legal implications of remote sensing and the elaboration of principles governing the use by States of artificial satellites for direct television broadcasting, the Legal Sub-Committee has made considerable progress. The draft treaty relating to the moon has been subject to slow progress since 1973, particularly on matters of the exploitation of the natural resources of the moon. The elaboration of a text that is the result of conciliation and that has been submitted by the Austrian delegation as an appendix to annex I of the Legal Sub-Committee's report offers great promise. The narrowing of differences between the previous positions enables us to hope for a final accord on this item, which has been under consideration since 1972.

The principles governing direct television broadcasting concern sensitive issues on which consensus eludes us. As we stated in our remarks to this Committee at its 172nd meeting in Vienna:

"the technological progress in the ability to deliver educational and informational services to remote areas by satellite direct television broadcasting requires equal progress in the ability to preserve the sovereign integrity of neighbouring States". (A/AC.105/PV.172, p. 6)

(Mr. Moghtaderi, Iran)

The elaboration of principles which preserve both the sovereignty of States and the freedom of information remains the primary task for the members of the Legal Sub-Committee in this item. We hope that this task will be approached in the spirit of co-operation which has permitted the elaboration of five new principles - although carrying square brackets in some instances - concerning the remote sensing of the earth by satellite. This progress was undoubtedly stimulated by a common realization of the potential benefits to developed and developing States alike. This application and the application of direct television broadcasting by satellite have special significance for developing States. Developing States in particular can benefit from improved communications in remote areas, on the one hand, and from the growing use of remote sensing to gather and analyse data essential to decision-making on economic and community development issues. We are particularly encouraged by the effort being made to include developing States in educational programmes through the development of ground facilities and in the planning of future programmes.

The priority given to remote sensing issues in the Scientific and Technical Sub-Committee, as indicated in the Sub-Committee's report, again underscores the importance of the application. We look forward to continuing consultation between the Legal Sub-Committee and the Scientific and Technical Sub-Committee on various interrelated matters. In particular, the classification and dissemination of remote sensing data, dependent upon levels of spatial resolution, has obvious implications for the consideration of requirements of notification and prior agreements between sensing and sensed States.

The proposal to establish a panel of experts to co-ordinate national and international activities in the field of outer space is worthy of careful consideration. The co-ordinating role of the United Nations in the peaceful uses of outer space could be enhanced by the existence of a group which could provide a consistent assessment of the new, widening array of national and international programmes. That panel could be a valuable resource for the second United Nations conference on outer space matters.

(Mr. Moghtaderi, Iran)

The use of nuclear power sources in outer space is a matter which warrants our most serious consideration. The working paper submitted by 16 States, including Iran, at the seventeenth session of the Legal Sub-Committee established three subjects for possible consideration: safety measures, notification by States intending to launch a nuclear-powered space object, and emergency assistance. The necessity of establishing measures to deal with the re-entry of nuclear-powered objects is clear and immediate. We shall support appropriate actions by this Committee to establish the co-operative efforts necessary to obviate, in so far as possible, the deleterious effects of such re-entry of nuclear-powered objects.

Finally, I have the distinct pleasure of congratulating my friend, the new Rapporteur of this Committee, Mr. Carlos Moreira Garcia of Brazil. Mr. Garcia's abilities are well known, and I feel his new position will allow the members of this Committee to benefit from those talents more fully.

Mr. GAVIRIA (Colombia) (interpretation from Spanish): Mr. Chairman, first of all, my delegation wishes to congratulate you on the progress achieved so far in the Committee and to wish you every success at this session. You can count on our full co-operation in this regard.

We are also grateful for the words of welcome uttered by you and other representatives on our recent accession to membership of this Committee.

May I take this occasion to congratulate the representative of Brazil, Mr. Carlos Moreira Garcia, on his election as Rapporteur of this Committee.

Although my delegation has already had the privilege of taking part in the work of the Scientific and Technical Sub-Committee and of the Legal Sub-Committee, this is the first time we have had occasion to speak as a full member of this Committee. My delegation is aware of the importance and responsibility which that implies, and hence we wish to take an active part in its work.

(Mr. Gaviria, Colombia)

Colombia, within its limitations as a developing country, has benefited from the advantages offered by the technology and peaceful utilization of outer space. Suffice it to mention the expansion of our international network through the acquisition of a second antenna in order to be able to operate within the INTELSAT network and the forthcoming inauguration of a first linkage of domestic telecommunications by satellite to achieve communication with our island of San Andrés, located in the Caribbean, and the interior of the country.

Moreover, the National Telecommunication Enterprise (Telecom) is carrying out studies for the placing in orbit of two SATCOL geostationary satellites to satisfy the requirements of television, telephone and telex circuits and the transmission of data for our territory.

Taking advantage of the fact that the agenda contains an item on synchronous geostationary orbit, our delegation would like to repeat its interest in having this question studied in the Legal Sub-Committee as well as in the Scientific and Technical Sub-Committee with the seriousness that it deserves, and we take this opportunity to make a few statements concerning the scope of this question.

The question of the synchronous geostationary orbit is of vital importance not only to Colombia but also to other equatorial countries that signed the Bogota Declaration of 1976, namely, Congo, Ecuador, Gabon, Indonesia, Kenya, Somalia, Uganda and Zaire.

The International Telecommunication Union (ITU) convened a world-wide administrative conference on radio broadcasting by satellite for the month of January 1977 in order to plan the frequency bands of 11.7 through 12.5 GHz in the geostationary orbit and in order to distribute orbital positions over the whole orbit. In consequence, the equatorial States, aware of the fact that this could be harmful to their interests, adopted there the firm decision to defend jointly their national sovereignty over this limited natural resource. This is not the first time that the Colombian delegation has claimed for itself and for the other equatorial countries special treatment with regard to the phenomenon of the synchronous geostationary orbit. Our Foreign Minister, Dr. Indalecio Lievano Aguirre, stated our position before the General Assembly at its thirtieth session in 1975 and reiterated it one year later in the same international forum.

(Mr. Gaviria, Colombia)

Subsequently, the Colombian delegation expressed its views not only in this Committee on 23 June 1977 but also in the Legal Sub-Committee on 31 March 1977 and on 21 March and 4 April 1978 and in the Scientific and Technical Sub-Committee on 14 and 24 February 1978, apart, of course, from the statement made along the same lines at the Conference on radio broadcasting by satellite held in the month of January 1977.

The characteristics of the geostationary orbit have already been referred to on other occasions. Suffice it to recall that the synchronous geostationary orbit is a circular orbit in the equatorial plane where the sidereal period of revolution of the satellite is equal to the rotation period of the earth in the same direction, that is to say that any satellite would be geosynchronous and geostationary when the conditions are created that permit the development of this natural phenomenon: gravitation, velocity, altitude and so forth.

As can be seen from the interesting study presented by the Secretariat entitled "Physical nature and technical attributes of the geostationary orbit" contained in document A/AC.105/203, dated 29 August 1977, the geostationary orbit is unique among the infinity of geosynchronous orbits since this is a synchronous orbit of zero grade inclination with regard to the equatorial plane, and for this reason it is the only place in the universe where, through a system of economically reasonable propulsion, it is possible to take advantage of the natural attributes of the area in order to maintain a satellite in a stationary position without great technical difficulties. Therefore it is clear that this phenomenon of the geostationary orbit appears only in the equatorial plane and geostationary satellites can operate in a fixed location within a given equatorial State or over areas of the high seas considered up till now as res nullius by the international community. The aforementioned characteristics thus make the geostationary orbit similar to a natural resource, as is confirmed by article 33 (1) of the Convention of the ITU signed in Malaga in 1973 which clearly states that the geostationary orbit and its frequencies are a limited natural resource which members must utilize effectively and economically in order to permit equitable access to this orbit and its frequencies for different countries or groups of countries on the basis of their needs and technical means, in accordance with the rules and regulations for telecommunications.

(Mr. Gaviria, Colombia)

The limitations of this natural resource are evidenced by the indisputable satellite saturation. It is illustrative to note that in accordance with recent information, there exist at present 108 space craft throughout the geostationary orbit. This circumstance means that, despite the small size of the satellites themselves, electromagnetic interference rather than collision occurs among them. Nevertheless, in the near future it is possible that communications satellites may be gigantic structures and that collision will not be so remote a possibility as it is at present. Moreover, this saturation is also a factor in the case of satellites that are able to convert solar energy into electric energy. A situation might occur in which satellites with enormous conversion platforms would fill the geostationary orbit to such a point that the equatorial States and developing countries in general could not directly benefit from its advantages. Hence, the value and importance to us of our segment of the geostationary orbit.

Thus, since the geostationary orbit is a limited natural resource, Colombia, along with the other equatorial countries, has the right of permanent sovereignty over that natural resource. This is not only authorized by resolution 2692 (XXV) of the General Assembly entitled "Permanent sovereignty over natural resources of developing countries and expansion of domestic resources of accumulation for economic development" but it is also indicated in the Charter of Economic Rights and Duties of States proclaimed by the General Assembly in its resolution 3281 (XXIX). As we can see in article 2 (1):

"Every State has and shall freely exercise full permanent sovereignty, including possession, use and disposal, over all its wealth, natural resources and economic activities".

(Mr. Gaviria, Colombia)

Now, because up until now there not been any international principle that clearly defines what is understood by the term "outer space", States can, by internal legislation, delimit their national space, exercise rights and undertake obligations in that area, and thus, since the geostationary orbit is a natural resource that is part of the national space of an equatorial State, the exercise of sovereign rights over that area is fully justified, especially when we bear in mind the provisions of General Assembly resolutions 2692 (XXV) and 3281 (XXIX), which represent mandatory principles of international law. In the case of Colombia, the situation is quite clear. Article 1777 of the Trade Code defines what is understood by national air space when it states that:

"Subject to the provisions of the international treaties that Colombia may wish to subscribe to, the Republic has complete and exclusive sovereignty over its national space, and this means the space that is comprised between a base constituted on the one hand by the territory referred to in article 3 of the National Constitution and, on the other hand, by the vertical extension of the limits of that territory and the waters within its jurisdiction."

So, in accordance with this provision of our Trade Code, Colombia has sovereignty over its geostationary orbit. Clearly, when Colombia refers to rights of sovereignty it does so only in relation to the segment of the geostationary orbit that is permanently located over its own territory and that is to be found between 70° and 75° longitude west of Greenwich, approximately. We do not claim any rights with respect to the geostationary orbit that is located over the ocean beyond Colombia's national jurisdiction. Colombia, like other equatorial countries, is aware of the fact that this ample segment may be considered the common heritage of mankind and that the competent international organizations can regulate its use in an equitable manner for the benefit of mankind as a whole. What we are talking about are the segments of the geostationary orbit permanently located in the territorial sky of the equatorial States.

Colombia is clearly concerned by this subject of the geostationary orbit, and we believe that it is of fundamental importance to preserve the system and we believe that it is of fundamental importance to preserve the system of consultation with regard to the use of the area, the nature of the satellites and so forth in the segment of the orbit pertaining to our territory. But in no way and at no time do we do this in order systematically to oppose the development

(Mr. Gaviria, Colombia)

of space activities or the peaceful exploitation and use of outer space. Neither do we consider our position to be in any way in contradiction of the letter and spirit of the Treaty of 1967. On the contrary, we concur in the philosophy of that Treaty, but we do claim the right to seek appropriate rules that will clearly take into consideration the position of the equatorial States.

In general terms, Colombia's position as well as that of the other equatorial countries in demanding that third States must request prior and explicit consent to use our segment of the geostationary orbit is identical with that of those States that require prior notification in the matter of direct satellite broadcasting or remote sensing. This is why we view with sympathy the suggestion made in the Legal Sub-Committee by some States that a principle be worked out on the sovereignty of States over their natural resources and the right of States to dispose of the data and information obtained during the process of the remote sensing of the earth. The question of prior consent and prior notification of sensed States has great interest for Colombia as it has for other States, as we can see from paragraph 49 of the excellent study contained in document A/AC.105/203, which I have already mentioned and which states that:

"The great advantage of the geostationary orbit is the possibility of very frequent temporal coverage of any particular territory within view. Also its photometric measurements would be more precise than those of rapidly moving low-orbit satellites".

We do not share the view of those who say that present economic and technological circumstances are such that we can speak with justice of equitable access to that orbit. This is mere rhetoric, which has no practical content. Thus, the equatorial countries, following the letter and spirit of article 33 of the Convention of the International Telecommunication Union (ITU), have declared that:

"the rights of sovereignty which the equatorial countries possess and exercise must be understood as designed to be of genuine benefit to their respective peoples and to the international community, in contrast to the present situation, where the use of the orbit is primarily for the benefit of the more developed countries."

(Mr. Gaviria, Colombia)

Up until now, as we already had the opportunity of stating in the Legal Sub-Committee,

"the exploitation and, even more, the utilization of space benefited only a few countries and an even smaller number of multinational enterprises rather than being for the benefit of all States".

Thus, Colombia, an equatorial country, has felt in duty bound to exercise its rights of sovereignty with respect to the segment of the geostationary orbit located over its territory in order to protect the interests of its people as well as those of other developing countries that suffer under present-day space law.

Although we have in the past already explained that the exercise of the sovereign rights of equatorial States over their segment of the geostationary orbit is in no way contrary to the provisions 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, signed in 1967, the references once again made to these points in the debate here compel us to repeat our position. The exercise of sovereign rights over segments of the geostationary orbit in no way contradicts the provisions of the Treaty of 1967. Article II of that Treaty prohibits the subjection of outer space, including the moon and other celestial bodies, to national appropriation by claim of one or another sovereignty. This is totally irrelevant when we talk of the geostationary orbit. The truth is that, as long as there is no clear-cut definition of outer space, it is impossible to maintain with any justice that the exercise of the rights of equatorial States violates the aforementioned international instrument. In order for such an assertion to have any legal basis, it would be necessary for the 1967 Treaty to contain a reference to the effect that the orbit of geostationary satellites is part of outer space. But this reference does not exist, and therefore one can hardly assimilate the geostationary orbit into outer space. I repeat that the phenomenon of the geostationary orbit is unique, and its features require a recognition of its sui generis nature, as was so aptly mentioned by some delegations.

Apart from this, as we have said on other occasions, Colombia is not a party to the 1967 Treaty. In accordance with our legal constitutional régime, an

(Mr. Gaviria, Colombia)

international treaty does not bind Colombia unless it has been approved by our Congress and ratified by our Government through the exchange or deposit of the instruments of ratification. Therefore, it is not sufficient to subscribe to a treaty, as is the case with regard to the Treaty of 1967; compliance with the other requirements of our national law is also necessary. Our country is not a party to the 1967 Treaty and will be unable to ratify that Treaty until a progressive development of its provisions has been achieved so as to include a definition of "outer space", bearing in mind the position adopted by the equatorial States with regard to the geostationary orbit.



(Mr. Gaviria, Colombia)

From all this we conclude that the geostationary orbit, because of its special characteristics, requires a legal régime that is different from that provided for outer space in the Treaty of 1967. We most sincerely believe that there exist scientific and legal bases that, as can be inferred from the excellent study prepared by the Secretariat in document A/AC.105/203 to which I have referred so many times, are sufficient to allow separate study on the geostationary orbit to be started right now, and thus we support the constructive suggestion made by the delegation of Belgium that this phenomenon must be examined on its own merits and on a priority basis, as was stated by the representative of Argentina. In this regard we also appreciate the spirit of co-operation and interest demonstrated by the delegations of Mexico, Turkey and others in their statements.

Finally, we agree with the suggestion that a United Nations conference on the peaceful uses of outer space should be convened. That might, indeed, be an excellent opportunity to fill the voids in the Treaty of 1967. We agree with the delegation of Ecuador that such a conference should not limit itself to the examination of the purely scientific and technical aspects of the progress achieved in the utilization of outer space but must also deal with the whole range of legal problems. That might also be the appropriate forum in which to examine the definition and/or delimitation of "outer space" bearing in mind the phenomenon of the geostationary orbit.

I would not wish to conclude without most cordially congratulating the Government and people of Poland on the achievement of Major Mirosław Hermaszewski, who has become yet another pioneer in the conquest of space.

Let me also congratulate most warmly Mr. Lubos Perek, Head of the Outer Space Affairs Division, and Ambassador Wyzner and Mr. Carver, Chairmen of our two Sub-Committees, for their valuable contribution and excellent work done in the last two sessions of this Committee.

The CHAIRMAN: I now call on the representative of the International Telecommunication Union.

Mr. IBNOU-ZEKRI (International Telecommunication Union) (interpretation from French): Thank you very much, Mr. Chairman, for the opportunity you are so kind as to afford me of presenting to your Committee some information on the activities of the International Telecommunication Union (ITU) relating to outer space and, in particular, to the matters on the agenda of this session.

The ITU had participated in the last session of this Committee and its representatives had an opportunity then to present information on our work in space. That pooling of information, while of particular benefit to the secretariats of both bodies, assumes its fullest significance, in our opinion, for the countries members of the Union. Furthermore, in accordance with the relevant resolutions of the United Nations, an account of our activities for 1977 has also been submitted to you in the form of an annual report, namely the seventeenth report of the ITU on telecommunications and the peaceful uses of outer space (A/AC.105/213). The report makes available information given by members of the Union on progress achieved in their respective countries in various space sectors.

There we can find, in particular, a summary of the work of the World Administrative Radio Conference for the Planning of the Broadcasting-Satellite Service in Frequency Bands 11.7-12.2 GHz, a conference that took place in Geneva at the beginning of 1977. We might well point out here one of the principles that guided the work of the Conference, namely, that of equality of rights for small and large countries, including those not represented at the Conference, as regards the optimum use of the radio frequency spectrum and the orbit of geostationary satellites. The Final Acts of this Conference were signed by the accredited representatives of 106 countries. The agreement contained therein provided for the allocation of frequency bands in orbital positions for the national broadcasting services of the various countries. The utilization of computers at the various stages of planning made it possible to obtain each time an appropriate national coverage while reducing spill-over to a minimum in accordance with the provisions of radio regulations.

The Final Acts of the Conference do not include a plan for radio broadcasting for region 2, the Americas. A planning conference for this region to be held in 1982 at the latest is envisaged. In the meantime, frequency allocation conditions in these bands come under the very precise procedures laid down in the

(Mr. Ibnou-Zekri, ITU)

Final Acts of the Conference in association with radio broadcasting regulations. The International Radio Consultative Committee (CCIR), one of the permanent bodies of the ITU, is charged with preparing the technical bases of this regional conference.

Now as concerns remote sensing an activity which falls within those of the ITU under the heading of earth exploration satellite service, the Union is interested in some of its aspects. Radio broadcasting regulations contain provisions for ensuring the proper radio-electric functioning of this service, and in particular the allocation of frequencies to the service. The consultative committees of the ITU are concerned with questions of standardization with regard to various aspects of remote sensing which have a bearing on all telecommunications problems - for example, the formats for transmission of data, conditions for utilization and exploitation, sharing of frequencies with other radio broadcasting services, and optimum utilization of the orbit spectrum. As is the case with many systems, in the final analysis various important characteristics of these systems such as, for example, image resolution capability, depend on optimum utilization of orbital parameters and the radio-electric spectrum.

One of the main items on the agenda of this session with which ITU has had much to do is that of geostationary orbits. The International Convention on Telecommunications, in article 33, emphasizes that the frequencies and the orbits of geostationary satellites are limited natural resources to be used "in an effective economical way in order to permit equitable access to this orbit and these frequencies by all countries". The same Convention expressly provides, among the tasks of the International Frequency Board, for the methodical registration of the actual locations assigned by countries to geostationary satellites. The radio broadcasting regulations of the ITU contain, *inter alia*, regulatory measures for the optimum utilization of this orbit. It is also to be noted that the 1971 Conference on radio broadcasting in space precisely spelt out that if, despite provisions and principles adopted by it, it were by chance to come about that, as a result of a step-up in the use of frequencies and orbital emplacements, countries were to encounter difficulties in one or more bands in meeting their radio communications needs in space, the next conference would deal with this question and the Administering Council of the ITU would make the necessary preparatory provisions for this purpose.

(Mr. Ibnou-Zekri, ITU)

In order to make available to the various bodies of the ITU the most recent technical data on the use of the geostationary orbit, the CCIR, the consultative committee of the ITU, has long been undertaking the necessary technical studies for a constantly improved utilization of that orbit. Those studies cover such varied subjects as the propagation of radio-electric waves, antennae, the stability of the position and the direction of satellites, the sharing of frequencies with other services, inter-satellite links, and so forth. A special interim working group of the CCIR has been entrusted with the technical work on which the rational utilization of the geostationary satellites will depend. The ITU has no legislative or regulatory provisions giving a geometrical definition of space. Actually its documents refer to the nature of space activities, and the way in which it considers space can thus be said to be functional - to use the term used by this Committee's Sub-Committees.

With regard to the participation of the ITU in the development of space applications, it would perhaps be well to recall that an important part of its activities is of a normative and regulatory nature; it has no programme in the strict sense of the word, but nevertheless, as an executive agency of UNDP, it is carrying out a great number of programmes in the development of telecommunications. Thus in the seventeenth report of the ITU may be found a brief description of the principal activities of the ITU in the area of space applications, particularly with regard to aid in establishing ground stations, participation in seminars, the organization of seminars and so on. We should also add that ITU's regulatory planning and standardization process, as well as the working out of technical rules for its international consultative committee, actually forms the framework within which can be developed in the best conditions as great a number as possible of systems of space communications. This is the case, for example, in the plan for satellite broadcasting worked out a year ago, which can be considered an aid to the development of space applications, because thanks to it all countries will be able, as soon as they have the capabilities, to have an appropriate number of radio-electric channels to ensure broadcasting that will be educational and free of technical interference in their national territories, essential parameters of the satellites being already known.

(Mr. Ibnou-Zekri, ITU)

We should also add to these purely spatial applications the fact that the general programme of technical co-operation of the ITU covers all categories of telecommunications, including space telecommunications, study cycles, expert services, scholarships, and so forth, as well as some development programmes in telecommunications in rural areas, or aid programmes in the case of natural disasters.

The ITU is carrying out studies so as to be able to define rules applicable to various telecommunications aspects of other subjects, some of which are on this Committee's agenda. Examples are radio communication with the moon, the detection of extraterrestrial life and the transmission and transfer of data procured through space research and other space applications.

The CCIR has also dealt, *inter alia*, with technical programmes relating to satellite solar electrical centres. This is a radio-electric service since the transmission of energy is effected via radio-electric waves. This is not only a space problem, since this type of transmission of energy is also envisaged for the earth. The CCIR studies concerning satellite centres are being carried out in the framework of the necessary technical studies for the subsequent working out of appropriate regulations. It is possible that some proposals for the World Administrative Radio Conference in 1979 also require the allocation of frequency bands and the establishment of appropriate procedures.

In the seventeenth report of the ITU may be found indications of the activities of two other permanent bodies of the ITU: on the one hand, the International Telegraph and Telephone Consultative Committee (CCITT), which is studying the use of telecommunications satellites for the transmission of telegraphy, facsimile, telephony and data as well as the integration of satellite circuits into the world telephone network; and, on the other hand, the International Frequency Registering Committee (IFRC), which according to the ITU Convention is responsible in particular for the methodical registration of frequency allocations and locations assigned to geostationary satellites. In 1967 this Committee received and dealt with 156 notifications relating to allocations of frequencies for space telecommunications; in 1977 the number of such notifications reached 4,477 - more than a 30-fold increase.

(Mr. Ibnou-Zekri, ITU)

These simple figures show the impressive increase in space applications.

With regard to the future programme of work of the ITU, we should mention that an Administrative World Radio Conference with a general agenda will be held in 1979. It will be competent to study the whole range of allocations of frequency bands as well as procedures to ensure the harmonious operation of radiocommunications, including space radiocommunications.

May I, in order to illustrate the importance of this Conference - the last of its kind was, incidentally, held 20 years ago - say that more than 1,000 delegates representing the many member States of the Union will participate, and over the 10 weeks of the Conference they will endeavour to give concrete expression to the views of their Governments. The result of their work will be a convention of a binding nature to serve as a treaty for member Governments governing telecommunications activities for many years to come, indeed until the dawn of the year 2000.

Between 23 October and 17 November of this year there will be a special joint meeting of the study committee to study groups of the CCIR, the purpose of which will be to establish a document destined to serve as a technical basis for the work of the Conference in 1979. Administrations will be able to use it in their respective countries to work out their own proposals.

Our Union attaches great importance to space telecommunications, which we believe are necessary for all space activities. That is the reason for our participation in the work of many international organizations dealing with space and, first and foremost, that of the United Nations Committee on the Peaceful Uses of Outer Space and its Sub-Committees.

The Union is also continuing actively to participate in the work of the specialized agencies concerned with space radio communications such as the International Civil Aviation Organization, the International Maritime Consultative Organization (IMCO), the World Meteorological Organization, UNESCO, regional intergovernmental organizations, and regional radio-broadcasting and scientific organizations. We should mention here the especially fruitful co-operation that has been established between the ITU, ICAO and, particularly, IMCO for the study of all problems relating to the establishment of satellite systems, which indeed are telecommunications systems and therefore should be integrated into the world-wide telecommunications system.

(Mr. Ibnou-Zekri, ITU)

Those are the main lines of the present and future activities of the ITU with regard to space radio communications. For practically 20 years now our Union has been working to ensure that space radio communications benefit from appropriate regulations and standards and well-planned activities in this regard also. When necessary, our Union has also worked out technical recommendations and extended its technical co-operation activities. We think that it has thus contributed to making operational a great number of activities of your Committee.

Mr. BUENO (Brazil): Mr. Chairman, it is a pleasure for the Brazilian delegation to take part once again in the work of this Committee, and this pleasure is augmented by the fact that you, Sir, are conducting our work, thus making it possible for my delegation to expect the attainment at this session of many of our common goals.

I should also like to take this opportunity to add my voice to those that have welcomed the new members of our Committee and to note that the membership's expansion will permit a more balanced and wider-based consensus and enhance the quality of our work.

A full report on the activities conducted in my country in the field of space applications has been presented to the Secretariat and will be circulated in the next few days. May I now express the general position of my delegation on some aspects of the many items on the agenda of this session.

One of the subjects that is receiving much attention at the present session is that of a treaty relating to the moon. Annex I of the report of the Legal Sub-Committee includes a tentative draft prepared by the delegation of Austria. We are most grateful to that delegation for this new effort. The report points to the fact that time did not permit consideration of the draft by the Working Group and that it was included in the hope that it might facilitate the reaching of a consensus. The Austrian text deserves full consideration by the members of this Committee along with others previously submitted as a basis for discussions that must not exclude the drafting of provisions establishing an internationally agreed legal régime to regulate the future exploration of the natural resources of the moon and other celestial bodies.

(Mr. Bueno, Brazil)

With reference to another item that is deservedly receiving much attention - the use of nuclear power sources in outer space - my delegation is convinced of the urgent need to elaborate internationally agreed rules on notification of the launching of objects with nuclear power sources on board as well as mandatory notification of possible accidental re-entry of such objects over the territories of third countries. My delegation also favours the elaboration of multilateral international safeguards for the use of nuclear power sources in space, subject to an effective system of verification. Such safeguards would complement and strengthen the existing system of international safeguards for the use of nuclear energy for peaceful purposes.

On the item of remote sensing of the earth, my delegation would have liked to see more progress on the discussion of the subject by the two Sub-Committees. The classification of data categories according to spatial resolution did not advance much and important points on the efficacy of such methodology were not made very clear. We should like to see the Technical and Scientific Sub-Committee further study technical ways that could perhaps provide a conciliation of positions on the dissemination of remotely sensed data. That should not be construed as acceptance of the idea that the rules to be established should be conditioned by the technologies available now and in the near future.

Brazil favours the efforts to establish a legal régime for the activities of remotesensing that would include the principle that sensed States must have priority in access to and control over data relating to their territories. It is also of great importance that the study of the technical and scientific aspects and that of the legal aspects of the subject of remote sensing advance as much in parallel as possible and in such a way as to preserve the sovereign rights of States and the interests of developing countries.

On the question of direct broadcasting by satellite, my delegation is not optimistic concerning the possibility of progress this year on the principles of consultation and agreements between States, programme content and unlawful/inadmissible broadcasts. We are, however, willing to make an extra effort to reach agreement on this very important subject, which has been under consideration by this Committee and the Legal Sub-Committee for so many years.



(Mr. Bueno, Brazil)

The principle of freedom of information must be consistent with the sovereignty of States. The right to broadcast must be qualified by the right to exclude undesirable foreign broadcasts.

Some technical solutions that have been tried do not entirely satisfy the need clearly to establish the legal principles involved. The Committee on the Peaceful Uses of Outer Space is the appropriate forum for such a venture, and its two Sub-Committees should be asked to devote more time, on a priority basis, to the subject.

My delegation is pleased to see that the two Sub-Committees have given appropriate attention to the study of questions relating to the geostationary orbit. That orbit is a resource of universal interest that might be depleted by the overcrowding of objects. Its sui generis character and the rights of all parties affected and interested should be recognized in an internationally agreed régime. We should like to support the proposal that the subject be kept on our agenda; this support for further discussion does not, however, prejudice the position of Brazil on the form of a possible régime for the geostationary orbit.

With respect to the possible convening of a second United Nations conference on outer space, it is the Brazilian delegation's firm belief that such a conference would be justified only if very careful preparatory work were done, particularly taking into account the time required for its completion in no less than two years after a decision by the General Assembly, the appropriate funding of the Conference and the need for a comprehensive and detailed agenda. We look forward to discussing next Monday the report of the Technical and Scientific Sub-Committee on the subject in an atmosphere of constructive work and willingness to compromise.

Mr. ANWAR SANI (Indonesia): Mr. Chairman, at the outset I should like to take this opportunity to express my delegation's pleasure at seeing you once again in the Chair as the Committee begins its deliberations. We have, indeed, appreciated your manifold and important contributions to the work of our Committee over the past several years, work which has been marked by increased activities for the Committee as the focal point of international co-operation in outer space affairs. We hope that you will be able to continue your most valuable association with the Committee after you leave New York for another assignment.

(Mr. Anwar Sani, Indonesia)

It is a privilege for my delegation to extend its felicitations to Mr. Garcia upon his election to the post of Rapporteur.

My delegation would also like to take this opportunity to welcome the new members. We are sure that their participation will make significant contributions in further advancing the work of our Committee, and my delegation looks forward to fruitful co-operation with them.

The past year has seen continued progress in the peaceful exploration of outer space. In particular, the completion of the United States space shuttle orbiter, which separated from the carrier aircraft and carried out a number of unpowered landings, was a significant event. In addition, the recent Soviet-Czechoslovak and Soviet-Polish missions have extended the frontiers of space activities and have opened a new era of co-operation in that sphere.

Indonesia attaches particular importance to international co-operation in outer space activities as the only means whereby the developing countries can benefit from the results of progress in this field. We believe, further, that the United Nations and its specialized agencies constitute viable instruments for the development of multilateral co-operation to promote the optimum use of space technology. These and other factors should be kept in mind as we continue our consideration of several complex issues.

As regards Indonesia's activities in outer space, during the past year a second satellite, the PALAPA II, was added to our domestic satellite communications system, which has been of great benefit to us. Considerable progress was achieved in the remote sensing of earth's resources. Multiband photographs were obtained of critical soil areas from stratospheric balloons. With scanners carried by aircraft, experiments were conducted for the detection of fresh-water sources in arid coastal zones, and of marine pollution and for archaeological surveys. With airborne radiometers developed jointly by LAPAN, the Indonesian National Institute of Aeronautics and Space, and DFVLR, the Federal Republic of Germany's space agency, experiments and a seminar were conducted in fishery research. The construction of a semi-mobile LANDSAT ground station has also been initiated by LAPAN. In addition, two scientific sounding rockets were launched successfully - the first such activity in 12 years.

(Mr. Anwar Sani, Indonesia)

Furthermore, the first ground station for space communication experiments which has been designed, erected and integrated in its entirety by Indonesian personnel is being used for the implementation of a recently concluded agreement to utilize the French-German SYMPHONIE satellite. Indonesia is also conducting experiments in solar and wind energy to determine their utility as alternate sources of energy. In several of its activities LAPAN has continued to enjoy the co-operation of other countries.

I turn now to the report of the Legal Sub-Committee (A/AC.105/218). In past years, as a result of concerted efforts, a considerable narrowing of differences of viewpoints on the moon treaty has been achieved; nevertheless some difficulties still persist. The draft agreement on that question submitted by Austria and included in the report of the Legal Sub-Committee represents a serious effort to reach a compromise which may facilitate the reaching of a consensus on many of the outstanding issues. My delegation is gratified to note that many of the principles which we have held to be of importance in a formulation of a treaty relating to the moon are incorporated in the Austrian text. Among the issues included which my delegation considers to be of great importance is the reaffirmation of the principle of the common heritage of mankind and that the moon is not to be considered as subject to national appropriation or exploitation.

As regards the question of direct broadcasting by satellites, Indonesia is of the view that in the formulation of legal principles special consideration should be accorded to the interests of the developing countries in the use of direct satellite broadcasting for the purpose of accelerating their national development. As the experience of Indonesia, among other countries, demonstrates, the application of that segment of space technology holds out promise in several areas of activity, in particular the extension of educational services and other forms of visual communication to remote areas. We anticipate great potential for such activities which would be enhanced by access to modern technology. In view of the importance of that field, Indonesia continues to support the general principle advanced by several delegations that satellite broadcasts should safeguard the legitimate rights and interests of all States.

(Mr. Anwar Sani, Indonesia)

My delegation rejects the principle of free dissemination of information, as it would be virtually impossible to preserve one's identity in the face of an uncontrolled flow of information from external sources. In view of those factors, technological progress must not be used as a pretext to override the rules of international law and the principle of coexistence, as well as those of national sovereignty and non-interference in the domestic affairs of other States. The principles that my delegation has outlined would constitute a basis for further progress on that important issue.

An agreement concerning regulation of remote sensing activities continues to elude us. My delegation has stated in the past that remote sensing has a significant role in the economic and social development of the less developed parts of the world. It is generally known that remote sensing data are expected to become an integral part of the national economies and the planning activities especially of the sensed States. It is also recognized that international co-operation in this field is the only cost-effective means of extending those benefits to the developing countries.

In the view of my delegation there are several provisions that should govern the formulation of regulations concerning remote sensing of the earth by satellite. First is the fundamental principle that remote sensing of the earth from outer space should be carried out for the benefit of all countries, irrespective of their economic or scientific development. Second is recognition of the principle of prior approval by those States whose territories are covered by remote sensing activities with respect to the dissemination of data and information. Thirdly, advance notice should be given to the sensed States by the sensing State. Fourthly, in order to promote international co-operation in those activities, sensing States should make available to other States opportunities for participation in those programmes; the realization of that objective can be facilitated by the establishment of regional facilities and by extending technical assistance. Fifthly, data or information should not be used in a manner incompatible with the legitimate rights and interests of the sensed States, in particular the right of full and permanent sovereignty over natural resources and the right to dispose of such resources or information concerning them.

(Mr. Anwar Sani, Indonesia)

Another issue which is under consideration is that of the definition and delimitation of outer space. Several delegations have already expressed their views on the need for a definition, and my delegation sees great merit in those views. It should be realized, however, that the co-operation of the space Powers will be essential if we are to make progress in our efforts to define and delimit outer space. This question has assumed growing importance, not only owing to the increasing number of spacecraft launched into outer space but also owing to the increase in the number of States involved in space-related activities. This growth is bound to have a direct impact on many areas and, in particular, upon many generally accepted principles of international law, including that of national sovereignty. The need for a clear definition of outer space must therefore be obvious to all, and the Committee should consider this matter in greater detail.

As regards the report of the Scientific and Technical Sub-Committee, my delegation feels that the question of remote sensing requires that more precise meanings be given to such terms as "primary data" and "analysed information". It is in that context that the study to be prepared by the Secretariat on the various aspects of resolutions could be of assistance in the deliberations of the Scientific and Technical Sub-Committee. Pending a definite agreement on the meaning of those terms, data or information obtained through remote sensing techniques should, we believe, be accessible to the sensed States. It is also important that that information should not be disseminated to the detriment - economic or otherwise - of the sensed States.

Indonesia also wishes to emphasize the importance of providing adequate training facilities in all aspects of remote sensing, particularly to the developing countries, to enable them to derive the maximum benefit from those activities. In addition, the specialized agencies which apply satellite remote sensing data in their programmes on behalf of developing countries should make efforts to increase such use, as well as the opportunities for the participation of those countries in training in the use of data. In this connexion we have listened with interest to the statement by the representative of the Food and Agriculture Organization of the United Nations (FAO) with regard to

(Mr. Anwar Sani, Indonesia)

the remote sensing activities of that agency. We hope that FAO will in the near future further strengthen its remote sensing unit in the area of renewable resources to assist the developing countries as recommended in the report of the Scientific and Technical Sub-Committee.

The task of achieving co-ordination has become increasingly difficult. One way of attempting to resolve that problem is through the establishment of a panel of experts to carry out a number of co-ordination and recommendatory functions. Such a body would aim at securing compatibility of the various systems and endeavour to attain standardization of procedures for data storage and dissemination, with a view to securing the widest possible use of that technology. In addition, the panel would prepare recommendations on matters relating to co-operation in the field of remote sensing. Furthermore, the panel could recommend various methods of standardization of comparable data and procedures for dissemination, in order to facilitate the exchange between different systems and users. Through those and other activities the panel would facilitate the optimum use of the benefits from remote sensing activities.

Despite the lack of greater budgetary allocations in the field of space applications, the Expert is to be commended for the rational use to which he has put the limited funds available. In the context of a great increase in space-related activities, my delegation feels that there are a number of steps that could be taken to augment United Nations efforts in this field. First, in the formulation of various programmes, the possibility of securing additional funds and expertise from other sources should be explored. Secondly, increased voluntary contributions, as well as greater technical aid from the developed countries, would significantly assist the full utilization of the potential of space applications by the developing countries. Thirdly, in order to ensure the optimum utilization of space activities in various parts of the world, it is essential that aid should be extended to as wide a geographical area as possible. Fourthly, in view of the effectiveness of a number of recently concluded activities under the auspices of the space applications programme, it would appear wise to increase the number of such activities on a more continuous basis. Such an enhanced

(Mr. Anwar Sani, Indonesia)

programme would be of immense value to the developing countries. On a related matter, my delegation wishes to take this opportunity to endorse the proposal that the Secretariat be requested to prepare a study concerning the need to provide technical assistance to the developing countries in the application of space technology, as well as the need to expand the space applications programme.

(Mr. Anwar Sani, Indonesia)

My delegation is generally in agreement with the report of the Working Party on the question of a conference on outer space matters and endorses the general recommendations thereon made by the Scientific and Technical Sub-Committee in its report to the Committee. As that report makes clear, over the years increasing confidence has been gained in the use of space technology and the major areas of potential use have become clear. There is an obvious need to assess developments in space technology and to analyse the effectiveness of the means of realizing the benefits of such technology. Furthermore, there is a need to allow wider participation by Member States in the activities of the United Nations in outer space matters. Most developing countries are far from having developed the capacity to utilize space applications technology for their needs. A conference which would take an over-all view and plan - on a long-term basis rather than dealing with matters on an issue-by-issue basis - would provide the most suitable framework for such an approach. It is therefore our earnest hope that the Committee will now find it possible to proceed from a general discussion of the possibility of holding a conference to a more positive decision of recommending the holding of such a conference to the General Assembly.

My delegation takes note of the widespread interest and concern expressed by the international community regarding nuclear power sources in outer space. Given the current state of technology and increasing space activities, radio-active fragments of satellites and other spacecraft may fall on the territory of other States. Such contingencies should be the concern of all nations. It is for those reasons that an early decision by the Committee to consider seriously the pertinent aspects of the problem would be advisable.

In conclusion, my delegation realizes that it is not an easy task to reach agreement on many of the issues that confront us. The difficulty of reaching consensus on the various complex problems is a very real one, but the rewards of doing so successfully are equally great. This is particularly so in view of the compelling need for outer space to become not an arena of conflict but one of co-operation. In that light we must display a spirit of co-operation and a determination to solve our differences for the common benefit.



Mr. TSIYREGZEN (Mongolia) (interpretation from Russian): The delegation of the Mongolian People's Republic would like to begin its statement by expressing its great pleasure at seeing you, Mr. Chairman, again presiding over the work of the Committee on the Peaceful Uses of Outer Space. Your rich experience and competence will, without any doubt, help the Committee successfully to carry out the tasks entrusted to it by the United Nations General Assembly.

My delegation would also like cordially to welcome the 10 new members of the Committee and the Committee's new Rapporteur, Mr. Carlos Moreira Garcia.

In December of this year, 20 years will have passed since the General Assembly of the United Nations held its thirteenth session at which it examined the question of the peaceful uses of outer space for the first time. In the period that has transpired since then, space science and technology have taken a great step forward. Today space has become the arena for broad-based international co-operation, in the development of which the SOYUZ-APOLLO flight marks an important milestone.

The delegation of the Mongolian People's Republic would like to take note of the tremendous contribution made by the Soviet Union, which first blazed the trail through space and was the first to create the basis for international co-operation in the exploration of space that has opened up unequalled opportunities for mankind. One of the greatest examples of successful international co-operation in the use of outer space for peaceful purposes is the INTERCOSMOS programme.

Joint experiments by the socialist countries with geophysical and meteorological rockets, the co-ordination of ground observations of space objects and space phenomena and joint laboratory and theoretical research and exploration are some of the most widespread forms of co-operation in that INTERCOSMOS programme. Now we can say with certainty that space experiments have yielded practical results of importance for many aspects of the economies of the countries of the socialist community.

The conclusion in 1976 of the intergovernmental agreement on the participation in manned spacecraft flights of citizens of the socialist countries marked a new stage in the exploration of space. In March

(Mr. Tsiyregzen, Mongolia)

of this year we witnessed the execution of the first space flight by an international crew, composed of the Soviet astronaut Alexey Gubarev and the Czechoslovak cosmonaut-scientist Vladimir Remek; and now we are witnessing the flight of a second international crew composed of a cosmonaut of the Polish People's Republic Mirosław Hermaszewski and cosmonaut Pyotr Klimuk of the Soviet Union.

My delegation would like to take this opportunity sincerely to congratulate the delegation of the People's Republic of Poland in connexion with that historic event for the Polish people. We should also like warmly to congratulate the delegation of the Soviet Union, which has generously given to citizens of other socialist countries the opportunity to participate in scientific experiments carried out on orbital stations launched by the Soviet Union.

The People's Republic of Mongolia, as a participant in the INTERCOSMOS programme, is taking part in the work of all its working groups in conjunction with the programme planned for the period 1976-1982.

In the sector of physics and technology, the Academy of Sciences of the People's Republic of Mongolia has now completed the processing of data obtained through the interaction of high-energy particles of cosmic rays with photo-impulse nuclei from the INTERCOSMOS-6 earth satellite. Hundreds - some 700, to be more precise - of high-quality negatives were obtained and processed in the satellite observation programme, using the two stations available to us.

(Mr. Tsiyregzen, Mongolia)

In 1977, in the central economic region of our country, an experiment in balloon triangulation was carried out with the participation of specialists from the German Democratic Republic and the Soviet Union. The Production and Research Institute of the Hydro-meteorological Service of the People's Republic of Mongolia is participating in research on large-scale processes on television and infrared depiction of cloud phenomena received from satellites in the remote sensing of the earth being carried out with aero-space facilities. That too is being done in the INTERCOSMOS programme.

In the sector of space research, our Academy of Sciences is carrying out activities related to the interpretation of space photography and imagery, and compiling maps and charts of our Republic's territory.

Joint work has already begun in the area of remote sensing by the scientific and production organizations of our Republic and the Soviet Union. That work is being carried out on problems relating to the over-all study of the natural resources of the Mongolian People's Republic, using space information. It has been deemed useful to carry out thematic cartography in our territory to compile geological, soil and topographical maps, as well as maps of water and forestry resources.

In response to our request, the Soviet Union has already photographed parts of our Republic's territory from manned spacecraft and COSMOS-series satellites. Photographic maps and synthesized images are now being prepared in order to obtain the best possible conditions for the most accurate interpretation of the natural resources deposits and geological structure of our country.

Co-operation in the area of remote sensing between our Republic and the Soviet Union is reflected in the Convention on the Transfer and Utilization of Remote Sensing Data obtained from Space, signed in Moscow on 19 May of this year. We are certain that the utilization of Soviet space information will play a great role in the study of the natural resources of our country and in the on-going scientific and technological co-operation between the Mongolian People's Republic and the Soviet Union.

(Mr. Tsiyregzen, Mongolia)

I should like briefly to put forward my delegation's point of view on some questions contained in the reports of the Legal Sub-Committee and the Scientific and Technical Sub-Committee.

Our country attaches great importance to the Committee's work on the peaceful uses of outer space which has already proved its effectiveness. Already in its more than 20 years' existence the Committee has been able to draft a number of important international documents and instruments regulating the activities of States in the conquest of outer space. We feel that the membership of the Committee should be kept at its present size.

The delegation of the Mongolian People's Republic has already put forward its position with regard to the second United Nations conference on space. We support the convening of that conference; however, in so doing we must stress the need for careful preparation for it.

The questions of highest priority for both Sub-Committees are those relating to remote sensing of the earth from space. My delegation's position in this regard remains consistent and is based on the acknowledgement of two basic principles, in other words on compliance with the principle of freedom of scientific research in outer space and with the universally recognized sovereignty of each State over its own natural resources and its right to utilize those resources and information concerning them. My delegation would like to affirm once again that we attach particular importance to the recognition by all parties involved of sovereignty over information connected with the natural resources of the sensed State. We favour the classification of remote sensing data obtained by satellite and feel that the spatial resolution of space photography is the main parameter of such classification.

As far as the principle of direct television broadcasting is concerned, we continue to advocate the recognition of the basic principle of obtaining prior consent from the State at which the direct broadcasting is to be aimed.

With regard to the preparation of a treaty relating to the moon, our delegation continues to feel that the moon and its natural resources - if such exist and are to be exploited - constitute the common heritage of mankind.

(Mr. Tsiyregzen, Mongolia)

In conclusion, my delegation would like to express its gratitude to the Director of the Outer Space Affairs Division, Mr. Perek, and Mr. Murthy, the Expert on space applications, and to all members of the Secretariat for their tremendous efforts for the timely preparation of all necessary documentation for our session.

Mr. YANGO (Philippines): In participating for the first time in the work of the Committee on the Peaceful Uses of Outer Space as a new member, I wish to extend to you, Mr. Chairman, and the other officers of the Committee my delegation's full co-operation in the accomplishment of the tasks before the Committee. Having been acquainted with the Committee's work under your chairmanship, my delegation shares the confidence expressed by other delegations in your stewardship of the Committee's twenty-first session.

My delegation is gratified also to have participated earlier this year in the work of the Scientific and Technical Sub-Committee and the Legal Sub-Committee. I wish to congratulate the Chairmen of the Sub-Committees, Mr. Carver of Australia and Ambassador Wyzner of Poland, for the continued excellent guidance they have provided the Sub-Committees in the conduct of their work.

Our congratulations and best wishes go also to Mr. Carlos Mereira Garcia of the delegation of Brazil on his assumption of the post of Rapporteur of the Committee.

May I be allowed once again to commend the Secretariat and especially the Outer Space Affairs Division for their excellent job in providing the Committee and the two Sub-Committees with needed documentation, thus making it much easier for my delegation to meld its work with that of the Committee.

The Philippines actively sought membership in this Committee, and we are happy to see that desire realized. It has been the hope of my Government that participation in the work of the Committee on the Peaceful Uses of Outer Space could better guide it in using space technology applications for improving the quality of human life, preserving the natural environment, preventing or moderating the harmful effects of natural calamities and accelerating economic development.

(Mr. Yango, Philippines)

At the same time, being a developing country that has only comparatively recently entered the field of space technology applications, the Philippines has a unique perspective and hence hopes to be able to make meaningful contributions to the Committee's work.

My delegation is aware that there are other developing countries which are keenly interested in membership in this Committee for the same reasons that my delegation sought it, and it is our hope that a way can somehow be found to accommodate them. In this regard, at this time in the space age when the urgent application of space technology is increasingly becoming an important factor in arresting the ever-widening gap between North and South, and when the bringing of benefits of space technology to what the representative of India called the "vast majority of humanity who were not at the starting-line of space exploration" has become a major thrust in the work of this Committee and the pervading theme of the proposed conference on the peaceful uses of outer space, my delegation is unable to accept the view that this Committee should give any priority for membership to States which have acquired effective practical experience in the field of outer space.

The motivation I mentioned earlier as having impelled my country to seek membership in this Committee also determines the orientation of my Government in space applications. The pace, extent and modalities by which it is able to harness space technology to those ends are, however, circumscribed by financial and technological limitations.

The Philippines has taken full advantage of opportunities offered in joint programmes with specialized agencies, bilateral or multilateral arrangements in space technology applications. For example, the Philippines has collaborated with the Food and Agriculture Organization of the United Nations (FAO) in conducting detailed land resources inventory mapping of the entire country. That undertaking adapted methods most suitable to conditions in the Philippines such as labour-intensive field checking and utilization of relatively low-cost LANDSAT photographic image products. In the process the method has encouraged a limited amount of remote sensing research in a counterpart governmental agency to demonstrate the usefulness of the small format. Counterpart personnel training also took place.

(Mr. Yango, Philippines)

My delegation welcomes the report of the FAO representative, Mr. Howard, which indicates a further expansion of that type of activity by that agency. I wish to commend FAO for that grass-roots approach to its world-wide activities. It is our desire to see that kind of undertaking emulated by other specialized agencies and intergovernmental organizations. It is for that reason that my delegation fully supports the recommendation of the Scientific and Technical Sub-Committee that FAO should strengthen, as soon as possible, its remote sensing unit in Rome to make it a fully operating remote sensing centre for renewable resources, and looks forward to the progress report on this matter requested from FAO by the Scientific and Technical Sub-Committee.

In parallel projects on a broader spectrum, the Philippines has utilized LANDSAT imagery and the image-100 computer system for a variety of natural resources, environmental, agricultural and land-use surveys.

On account of a specific concern to prevent or moderate the harmful effects of typhoons, the Philippines has not lagged behind in utilizing meteorological data from satellites and in upgrading equipment for the improved utilization of such data. The Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA) will soon be acquiring the necessary equipment that will enable it to receive hourly cloud cover photographs from a geostationary meteorological satellite launched by Japan. In this connexion, my delegation welcomes the launching of a GOES-C satellite on 6 June last, the final link of a world-wide weather reporting network, which was followed by the launch of SEASAT last Monday. My delegation would like to suggest that the General Assembly again request an updated report from the World Meteorological Organization along the lines of that requested in General Assembly resolution 31/8 of 8 November 1976.

In the field of global communications, the Philippines has been a member of INTELSAT and has ranked as the twenty-eighth largest user of satellite communications among the 99 members of the organization. The Philippine Communications Satellite Corporation operates an earth station in Tanay, Rizal Province, with two antennae linking it to two satellites covering the Pacific and Indian Ocean regions. Through the facilities of the Philippine Long Distance Telephone Company a link has been established with MARISAT.

(Mr. Yango, Philippines)

The Philippines is also exploring the feasibility of regional co-operation in satellite telecommunications and looks forward to the practical application of direct broadcast satellites.

Even with a satisfactory global communications link, the Philippines domestic communications system suffers from deficiencies exacerbated by nature which my Government hopes to overcome through satellite applications. Eleven standard Earth stations will initially be established to form a basic nationwide network. Nine permanent-type earth stations will subsequently be established in suitable sites throughout the archipelago, with a control station in Manila. Instead of acquiring its own communications satellite, the Philippines will use the spare capacity of the Indonesian satellite PALAPA through a lease agreement. My Government is watching with keen anticipation the practical application of direct broadcast satellites.

Having earlier heard highly impressive accounts of national highlights in space achievements from other members of this Committee, I feel that my narrative indeed sounds modest and uneventful. It is nevertheless offered, although in broad outlines, in the hope that it will provide a perspective of efforts made by a developing country in harnessing space applications for national advancement and in some way have a constructive influence on the Committee's work.

The Philippines being a country of limited financial resources and no indigenous and original space programme, it is able to acquire space technology for practical applications only through assimilation. Aside from collaboration with United Nations specialized agencies and intergovernmental organizations, it sees tremendous value in country-to-country co-operative undertakings in space applications. We are happy to have collaborated in the experimental LANDSAT system. It is our desire to see greater co-ordination and complementarity between LANDSAT and its counterpart programme sponsored by the Soviet Union. It is our hope that a definitive United Nations role in co-ordinating those programmes can soon be determined.

We would like to commend the INTERCOSMOS programme and congratulate Czechoslovakia and Poland on being the third and fourth States, respectively, to succeed in putting a man into space. The beneficial results of that programme have been testified to by its main beneficiaries, Czechoslovakia and Poland.



(Mr. Yango, Philippines)

My delegation also welcomes the announcement by the representative of the United States in his statement of 27 June regarding an on-going thorough review of the space policy of his Government designed to permit the formulation of over-all principles to guide United States activities, with the commitment to "... the exploration and use of outer space by all nations for peaceful purposes and for the benefit of all mankind, and to the pursuit of space activities in order to increase scientific knowledge and to develop useful commercial and government applications of space technology."

(A/AC.105/PV.180, p. 21)

(Mr. Yango, Philippines)

My delegation also fully appreciates the value of the fellowships and training programmes offered by United Nations agencies, intergovernmental organizations and the more advanced countries in introducing developing countries to space applications technology and upgrading their capabilities in this field. My delegation takes pride in having contributed to this undertaking by acting as host to and co-sponsoring the 12th International Symposium on Remote Sensing of the Environment earlier this year, a project in which the United Nations Expert on Space Applications, Mr. Murthy, was also actively involved. My delegation hopes to see a further expansion of these programmes and views this effort as one aspect of the preparations for the proposed United Nations conference on the peaceful uses of outer space.

My delegation earlier supported the proposal to hold a United Nations conference on the peaceful uses of outer space. It agrees that the conference should be held three years after the decision by the General Assembly, in order to allow time for adequate preparation. It is of the view that the General Assembly should take such a decision during its thirty-third session. It feels that its expectations concerning the conduct of the conference are justified by the report. To ensure fruitful results, the conference must not be a passive gigantic scientific seminar, but must be more of a trade fair or clearing house of space technology applications, at which delegations can explore and secure expert advice and guidance on applications suited to the needs and purposes of particular countries. My delegation therefore wholly endorses the report of the Scientific and Technical Sub-Committee on the question of the holding of the conference, particularly the recommendations on the objectives of the conference and its agenda. I should like to congratulate Mr. Yash Pal of India, who so ably presided over the drafting group charged with drawing up a draft report.

A final point to which I wish to address myself concerns the use of nuclear power sources in outer space. The recent incident of the uncontrolled re-entry into the atmosphere of a satellite with a nuclear power source reawakened an awareness that space endeavours, despite an enviable record of outstanding success, are not flawless. The same incident gave an actual demonstration of the hazards

(Mr. Yango, Philippines)

involved if an isolated failure should involve nuclear materials. Observing the scale of operations involved in coping with the disaster, with the logistical, financial and technological implications, brought added concern to my own country.

In my delegation's view, the best guarantee against the recurrence of such an incident would be the prohibition of the use of nuclear-power sources in outer space. We have faith, however, in the representations of the space Powers that there are unique, highly beneficial uses of this type of power source in outer space, and are willing to accept their word in this regard. On the other hand, it is but fair that efforts should be made to allay the concerns of other nations. My delegation therefore wholly supports the proposal for the inclusion of the subject of the use of nuclear-power sources in outer space in the agenda of this Committee, and that specific mandates be provided to the two Sub-Committees to consider the subject.

My delegation supports in particular the working out of more stringent notification procedures pertaining to spacecraft with nuclear-power sources, and international emergency assistance in the event of accidental re-entry. More importantly, consideration of the matter should include studies on technical safeguards which should be applied in the use of nuclear-power sources. In this regard, my delegation appreciates the initiative shown by the United States delegation in submitting a working paper detailing the uses of radio-active (nuclear) materials by the United States for space power generation. It is the hope of my delegation that other delegations will follow that example and facilitate the task of safeguards study and examination by the relevant Sub-Committee or, possibly, a working group.

In conclusion, my delegation, as representative of a new member of this Committee, acknowledges with deep appreciation the warm words of welcome expressed by various delegations to the new members.

Mr. STOJANOVIC (Yugoslavia): Yugoslavia, as a new member, is participating for the first time in the work of the Committee on the Peaceful Uses of Outer Space. You, Mr. Chairman, and many other delegations have addressed words of welcome to my country. Therefore I appreciate this opportunity

(Mr. Stojanovic, Yugoslavia)

to thank all of you, and I can assure you of our complete support and constructive co-operation for the successful work of this important international body.

In the course of this year Yugoslavia has been present at the meetings of the Scientific and Technical and Legal Sub-Committees. We consider the first experience we gained therefrom to be very positive, emphasizing that some of the open questions, according to our views, could with the necessary effort be resolved during the forthcoming period.

I do not want to give now a review of the activities in my country in the field of the peaceful uses of outer space because we did that during the Scientific and Technical Sub-Committee meeting. However, I should like to express our views regarding some questions which have been discussed in the Sub-Committees and which it is foreseen will be considered in the parent Committee.

As the first of those, I wish to single out the direct broadcasting of television programmes from satellites. To this idea it is necessary to add the idea of radio-programme broadcasting from satellites, which will be considered during the next World Administrative Radio Conference in 1979, also in Geneva. Although last year considerable progress was noted on this question, at the meeting of the Legal Sub-Committee this year it was not possible to register further progress. But, not touching for a moment on the problem of the principles governing the use of satellites for purposes of information circulation, we do not see how to resolve these questions otherwise than was done at the World Administrative Radio Conference of the International Telecommunication Union (ITU) in 1977 in Geneva, where precise orbital positions and exact frequencies in the 12 GHz band were assigned to all countries. On the basis of this plan, the general provisions of the ITU radio regulations, and especially resolution 428 A, have been unanimously adopted and respected, so that the power radiated from satellites and the exact coverage zone of each country, with the technically unavoidable spill-over to neighbouring countries, have been determined. More light will be thrown on this if I quote the following sentence from resolution 428-A:

(Mr. Stojanovic, Yugoslavia)

In devising the characteristics of a space station in the Broadcasting Satellite Service, all technical means available shall be used to reduce to the maximum extent practicable the radiation over the territory of other countries unless an agreement has been previously reached with such countries."

A solution such as has been adopted ensures the normal technical functioning of this global system, thus avoiding any disorder, mutual interference and disturbances. Therefore, when discussing the principles governing satellite broadcasting, we have to bear in mind these facts, not mentioned here, and we must do our best to avoid the problems of the crowded spectrum, which otherwise is a limited natural resource, and endeavour not to create in this new technical facility for transmission of information the inconvenient situation we have at present as regards the short- and medium-wave frequency bands.

As far as remote sensing of the earth by satellite is concerned, we welcome the discussions aiming at the clarification of all technical factors involved in this activity, and we deeply appreciate the work of and the studies presented by the Secretariat and the Committee on Space Research (COSPAR) and the proceedings of difference international meetings.

Furthermore, Yugoslavia has responded positively to the Secretariat's request concerning the panel of experts and ideas based upon the Secretariat study in A/AC.105/154.

(Mr. Stojanovic, Yugoslavia)

Bearing in mind all the benefits of the exploration of this new technique and its importance in all aspects, we are in favour of close international co-ordination in this field. In seeking an answer to how to resolve this problem, we cannot neglect the method which has been followed successfully in the field of telecommunications, where the INTELSAT and INTERSPUTNIK programmes have proved the best available means of international co-operation. We wonder whether perhaps it is possible to try to envisage, in the relatively near or somewhat farther future, the creation of a similar global system for the remote sensing application.

Questions relating to the definition and/or delimitation of outer space and outer space activities, including questions relating to the geostationary orbit, have been on our agenda for a long time. Starting from the fact that space activities are becoming both more intensive and more extensive, and from the present state of space law, my delegation comes to the conclusion that this agenda item should be given higher priority.

The use of nuclear-power sources in space makes it necessary that some steps be undertaken in order to minimize, if not exclude, all possible risks to life on earth and its environment. My delegation therefore supports the idea that our Committee should take a decision to start a thorough analysis of the problem with a view to adopting the necessary measures regarding standards of safety, the system of notification and emergency assistance.

In accordance with our general principles, I wish to reconfirm the support of my Government for the proposal to hold a second United Nations conference on outer space which was put forward during the Scientific and Technical Sub-Committee's session this year. We strongly believe that such a conference could summarize all the successes and advantages of space technology, thus appreciably satisfying the needs of all the developing as well as the developed countries in this respect. At the same time, we share the view of many other delegations that the expected results can be achieved only in conditions of the careful preparation of such a conference, taking into account the time necessary, the financial problems and the preparatory work that has to be done.

(Mr. Stojanovic, Yugoslavia)

Before concluding, on behalf of my delegation I should like to thank Mr. Carver and Ambassador Wyzner for the excellent chairmanship of our two Sub-Committees and Mr. Perel and the Outer Space Affairs Division for the exceptionally useful studies which helped us in our work, and to present our compliments to Mr. Carlos Moreira Garcia, the new Rapporteur.

In conclusion, I wish to address my sincere congratulations to the delegations of Czechoslovakia, Poland and the Soviet Union on the recent successes achieved in space applications, and to the delegation of the United States for its country's successful achievements in space. I include particularly the selection of three cosmonauts from other countries to take part in launchings into space. We hope that this co-operation will soon include other countries too. Thus these facts give the best and most evident proof of full international co-operation, in which this Committee plays a special role, which, I firmly believe, Mr. Chairman, will continue to be as successful as it has been so far under your wise and skilful guidance.

Mr. KANGWANA (Kenya): Mr. Chairman, my delegation would like to reiterate its appreciation of your able chairmanship of our Committee. Under your guidance the United Nations Committee on the Peaceful Uses of Outer Space has made steady progress. This Committee has grown not only by increasing its membership but also by widening the scope of its activities. This is a welcome development, because throughout the length and breadth of our Committee's development we can hope to bring out new views and ideas in order better to serve the international community so far as space applications are concerned. It is in this spirit that my delegation welcomes the new members. We assure them of our full co-operation in the work of both this Committee and its subsidiary bodies.

Our congratulations also go to Mr. Garcia of Brazil on his appointment to the position of Rapporteur. We wish him all the best and know that he will discharge his duties to the best of his ability and facilitate the work of our Committee.

My delegation would like also to take this opportunity to congratulate Poland and Czechoslovakia on their magnificent achievement in the space

(Mr. Kangwana, Kenya)

programme. As we go about our daily business within the confines of our earth we are bound to develop the same human feelings about each other. However, when one of our kind takes off into space outside our immediate vicinity our perspective changes. He ceases to be a member of a particular village; he belongs to us all. It is with this feeling that my delegation salutes those who are now in space, and the international co-operative effort that has made this possible. We wish them a happy return home.

At the last meeting of this Committee, in Vienna, my delegation reported on my country's growing interest in and efforts to reap the benefits of the peaceful exploitation of space. We had created then a National Council for Science and Technology. I am happy to say that under that Council a Committee on the Application of Satellite and Space Technology has been active since. The Council, among other things, has the duty:

"... to survey, review, evaluate and advise the Government on the scientific and technological aspects of all space activities and their co-ordination".

Through its encouragement and with the assistance of the office of the United Nations Expert on Space Applications, my country was able to participate in the United Nations/UNESCO panel meeting on the Satellite Instructional Television Experiment (SITE) from 31 October to 5 November 1977 in Ahmedabad, India. In this regard, my delegation would like to express its gratitude to the Government of India, the United Nations Outer Space Affairs Division and the United Nations Educational, Scientific and Cultural Organization (UNESCO) for the opportunity to share India's experience in SITE.

In January 1978 our National Council for Science and Technology in conjunction with the Ministry of Natural Resources held a seminar on remote sensing for top-level decision-makers. The objective of the seminar was to promote an understanding of remote sensing technology, its usefulness and limitations as a tool for decision-makers with key policy-planning and resource-management responsibilities.

Remote sensing of the earth by satellite has been going on in my country since the American LANDSAT programme in 1971. Since then, efforts have been made, with



(Mr. Nanywani, Kenya)

the assistance of the United States and international organizations, to bring information to key decision-makers and planners on some of the applications of remote sensing of the earth by satellite for development purposes. Surface water resources assessment, management of water resources, soil surveys, mineral and oil surveys, food watch, crop and forestry inventory and plant diseases, identification of geological features, cartography, urbanization and land use, protection of the environment and monitoring of changes in it, thermal activity surveillance, wildlife management, fisheries and other marine resources surveys, weather monitoring, and agrometeorological applications are among the many subjects that have been dealt with in panel discussions.

(Mr. Nanywani, Kenya)

Kenya has a large community of current as well as potential users of remote-sensing data. Technical and professional training in this area therefore needs to be enhanced. It is with this consideration in mind that my country welcomes the United Nations regional training seminar on remote sensing of earth resources that is planned to take place in Nairobi in September 1978. I have the assurances of our National Council for Science and Technology that it will do everything in its power to ensure the success of this coming seminar.

In the area of communication, my country as a participant in the INTELSAT project with a ground receiving station has its telecommunication system linked to all major centres of the world. It is also possible for us to receive television programmes from any part of the globe via satellite. Kenya, as is well known, is the host country of the San Marco satellite station at Malindi. These are some of our humble co-operative efforts in the peaceful application of space technology. For the future we hope to continue to encourage studies in the field of space applications. We also look forward to the establishment of the proposed Economic Commission for Africa (ECA) remote-sensing training centre in our part of the continent.

Turning to the work of the subsidiary bodies of this Committee, my delegation would like to commend the spirit of give and take which made it possible for some progress to be achieved during the latest Sub-Committee sessions. I hope that the members of this Committee too will exercise the same spirit of tolerance and understanding as they try to appreciate the differing positions, with the collective aim of the utilization of space technology for the benefit of all mankind.

In the area of remote sensing, for instance, my delegation holds the view that there is need to examine the circumstances in which the benefits of space application can accrue to the developing countries. We know that although the remote sensing of the earth by satellite is a relatively new and sophisticated technology it is appropriately applicable to developing countries. In areas where natural resources are uncharted, the making of quick and economical inventories of resources and the monitoring of the environment are essential in the planning and development of such resources.

(Mr. Kanavara, Kenya)

However, we are also aware that the indiscriminate dissemination of such information can be inimical to the interests of the sensed countries. It has been pointed out, remotely-sensed information could become an integral part of national economies and planning activities. It is the view of my delegation that this possibility could be marred by indiscriminate dissemination of some sensed data.

As regards the question of nuclear-power sources in space, my delegation was one of the sponsors of the document attached to the report of the Legal Sub-Committee, and we should like to see this Committee take an affirmative decision to facilitate the continued study of the question by both the Scientific and Technical Sub-Committee and the Legal Sub-Committee. For this purpose, my delegation is prepared to enter into further consultations with a view to reaching a consensus.

As space technology advances, the danger of developing countries being left behind seems to us a real one. One way of lessening this possibility is through education, training and the provision of technical assistance. My delegation supports the international co-operative effort in this area and the co-ordinating role of the United Nations. The work of the United Nations Expert on Space Applications is particularly commendable as it is the only means of opening the door for developing countries to enable them to expand their knowledge and experience in space applications. An expansion of this programme, therefore, would be helpful and useful to developing countries.

Concerning the convening of a United Nations conference on outer space matters, my delegation is pleased with the efforts put in by Mr. Carver and Mr. Yash Pal in determining the need for such a conference and the general direction that such a conference should take. It is the view of my delegation that enough work and thinking has gone into this matter concerning both the scope of the conference and its organization to warrant our Committee's making a definite recommendation to the General Assembly at its next session to take a decision on the holding of the conference as soon as possible.

With regard to the question of the geostationary orbit, my delegation has stated in the past that the sovereignty of the equatorial countries, of

(Mr. Kangwana, Kenya)

which mine is one, extends to the segments of the geostationary orbit above those countries. We should like to restate that position. The limit of outer space is not defined within the 1967 Treaty on outer space. Moreover, there is no generally accepted definition and/or delimitation of outer space. There is no valid ground, therefore, on which to dispute the claim by equatorial countries to sovereignty over their geostationary orbit. It is clear that the geostationary orbit is a physical fact linked to the reality of our planet in so far as its existence depends on its relation to the gravitational phenomenon generated by the earth.

We have accordingly expressed our reservation so far as the placing of satellites in that orbit is concerned. We believe that the consent of the equatorial countries should be sought whenever it is intended to place a satellite over their respective segments of the geostationary orbit.

Turning now to the issue relating to the elaboration of principles governing the use by States of artificial earth satellites for direct television broadcasting, my delegation is somewhat disappointed by the slow progress we seem to be making in that area. My delegation sees direct television broadcasting by satellite as an important step in the advancement of education and development in developing countries. The draft principles on consultation and agreements in our view should form a basis on which a further step forward could be taken. While we agree that freedom of information is a fundamental right of an individual and should be guaranteed, we feel that often the context within which that freedom is to be realized is not taken seriously into consideration. In our view the existence of choices does not in itself guarantee freedom. In the current flow of information in the world, for instance, we have little access to the sources or say in the shaping and dissemination of that information. We have no existence in the present-day information world. In preparation of principles governing the use by States of artificial earth satellites for direct television broadcasting my delegation would like to see an evolution of the information concept, particularly as it relates to freedom and the flow

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(Mr. Kangwana, Kenya)

of information, to encourage mutual respect and understanding of diverse cultures and facilitate a meaningful exchange of ideas and education. My delegation would like to think that on that point there is probably no disagreement. If that is so, we should try to work towards a quick solution of this problem.

The meeting rose at 1.20 p.m.

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