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COMMITTEE ON THE PEACEFUL USES OF OUTER SPACE

VERBATIM RECORD OF THE ONE HUNDRED AND NINETY-EIGHTH MEETING

Held at Headquarters, New York,
on Friday, 22 June 1979, at 3 p.m.

Chairman: Mr. JANKOWITSCH (Austria)

Organization of work

General exchange of views (continued)

Applications of space science and technology and activities in outer space:

- (a) Remote sensing of the earth by satellites
- (b) Direct television broadcasting by satellites
- (c) Definition and/or delimitation of outer space and outer space activities, bearing in mind, inter alia, questions relating to the geostationary orbit
- (d) Space transportation systems
- (e) Use of nuclear power sources in outer space
- (f) Examination of the physical nature and technical attributes of the geostationary orbit
- (g) Draft treaty relating to the moon

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The meeting was called to order at 3.35 p.m.

ORGANIZATION OF WORK

The CHAIRMAN: Before proceeding to our consideration of agenda item 3, "General exchange of views", and then to agenda item 4, I want to put before members of the Committee a proposal that reflects a number of statements that were made earlier in the course of our debate to the effect that the Committee should focus its attention on the possible achievement of a consensus on a treaty on the moon and other celestial bodies. The suggestion has been made that we set up an informal working group that could begin its task early next week and review this treaty with a view to arriving at an agreement. It has been suggested that this working group might be headed by the representative of Hungary, thereby enabling it to draw on the rich experience that the Hungarian delegation has accumulated during consideration of this item by the Legal Sub-Committee and to avail itself of the services of Mr. Haraszi. I understand that the representative of Hungary would accept the chairmanship of that informal working group. If there are no objections, I shall take it that it is so decided.

It was so decided.

GENERAL EXCHANGE OF VIEWS (continued)

Mr. VERESHCHETIN (Union of Soviet Socialist Republics) (interpretation from Russian): My delegation would like to make a few comments on the question of the preparation for the United Nations Conference on the Exploration and Peaceful Uses of Outer Space within the framework of the discussion under agenda item 3.

In the opinion of the Soviet delegation, the main task of that Conference would be to summarize modern achievements in outer space research and their practical applications with special emphasis on the needs and requirements of developing States. Of course, the Conference should be of interest to all Members of the United Nations and should serve the cause of the further development of international co-operation in this field as well as the clarification of prospects for the development of space science and technology.

(Mr. Vereshchetin, USSR)

In these terms we think that the agenda proposed by the Scientific and Technical Sub-Committee basically provides the solution for this task, and we note the useful work that has been done by that Sub-Committee on other items linked to the preparation for the Conference.

(Mr. Vereshchetin, USSR)

At the same time, in General Assembly resolution 33/16 this Committee was entrusted with yet another task, namely, to present to the General Assembly at its regular session its recommendations on such questions as the venue and time of the holding of the United Nations Conference. Unfortunately, the Scientific and Technical Sub-Committee has not been able to agree upon a solution, and in its report it appeals to our Committee to come up with a final recommendation on these questions.

In this connexion our delegation would like to remind the Committee that during the session of the Scientific and Technical Sub-Committee, an invitation was received from the Government of the Soviet Union. If that invitation were accepted, the Conference would be held at Moscow in August 1982. The invitation was confirmed at this session of the Committee in the statement of the head of our delegation, Ambassador Troyanovsky. Our delegation would like to express its gratitude to those delegations and countries that have supported the Soviet Union's proposal. As we understand it, no other country has made an offer to act as host to the United Nations Conference. We have heard nothing at all said in objection to the holding of the Conference in the Soviet Union. Thus it seems to us that there will be no special difficulty in having the question of the time and venue of the Conference decided at this current session of our Committee. It seems to us that the final resolution of these questions at this session of the Committee is very desirable for at least three reasons. First, we have the mandate from the General Assembly. Secondly, it is important to the preparatory work on the Conference, so that that work may proceed properly and effectively; in this connexion we feel that it would be desirable to ask the Secretariat to give us some information regarding the time-table and what would happen if we were to postpone taking a decision on this matter at the present Committee session and take it later. I would ask how the Conference would be affected if we were to postpone taking a decision. Thirdly, a rather speedy solution of the problem is important to the organizing country. As is known, in all countries such conferences are planned ahead of time. In our country only the Academy of Sciences annually holds several large international conferences of this type and, of course, preparations for this type of conference require long planning that should be done ahead of time.

(Mr. Vereshchetin, USSR)

In conclusion, allow me to assure the members of the Committee that if the Committee and the General Assembly wish the United Nations Conference to take place in the Soviet Union, our country will do everything necessary to make the Conference, in which all States Members of the United Nations that so desire can participate, a success.

Mr. RYCHLEWSKI (Poland) (interpretation from Russian): Mr. Chairman, I hope that I will not be too much out of order here if I begin with comments of a quite personal nature.

As far as I understand it I, with a few colleagues from other delegations, am a direct representative here of those scientific and technical teams which have a direct hand in outer space research. I must acknowledge that this is the first time I have been in a forum where my narrow speciality - mathematics, called the queen of sciences - has apparently been minimally represented. But perhaps it is precisely from my position as one involved in science that I should make one comment regarding the forthcoming second United Nations Conference on the Exploration and Peaceful Uses of Outer Space, as well as on the very approach to the questions under consideration. We did not do this in our earlier statements, since we thought that the questions were obvious.

The thought was expressed here that the second Conference should not be transformed into a Conference of scientists for scientists. Since I am afraid that those words might fall on fertile soil, I wish to spell out our understanding of this matter.

I shall begin with the fact that many centuries of mankind's experience have shown that what scientists do - and here I mean genuine scientists - in the final analysis serves not just scientists, but all people. I do not want to develop this thought, which might be illustrated with magnificent examples by referring to Archimedes, Newton, Tsiolkovsky, Marie Curie-Sklodowska and so forth. The point is that we should not forget that in the final analysis the most important wealth that mankind has is his store of information, his knowledge bank, built up by science over many decades and centuries.

And it seems to me that all of us, all countries, all people should be interested in adding to the riches of this store of knowledge. Moreover,

(Mr. Rychlewski, Poland)

science in its very essence has a clearly expressed international character, and we understand this well when we get together for scientific meetings. Therefore it seems to me that a conference at which there would be no due representation or hearing given to scientific-technical problems of outer space research would be highly superficial in nature.

Naturally, the following question arises: Are there such scientific-technical questions that it would be advisable to present at a forum like the United Nations Conference? Yes, there are such questions. Of course, in principle we suffer no lack of scientific meetings on problems of outer space research. However, while the majority of them are very necessary and useful, they are specialized in nature. Just beyond such narrow specialization are the congresses of COSPAR and of the International Astronautical Federation. At the same time the present situation in outer space research is one where the reconnoitering stage is over, and we have before us a multifaceted, planned and, I would say, even monumental task in outer space which requires the most attentive discussion in an international forum at the appropriate level. We are not talking about details, but rather about the strategy for a scientific and technical search into outer space.

Finally, I would like to make the following comment. When I speak of scientific-technical problems I have in mind not merely those applied offshoots which today are already quite clear in scientific terms and for which there is already such a great user demand. We should be interested, in our opinion, also in what will be important tomorrow, and what will be important the day after tomorrow. In this sense our delegation and our country give the greatest consideration to those large programmes of basic scientific research which are being carried out in the Soviet Union, in the United States, and in a number of other countries. It is precisely this fundamental research which blazes the trail in outer space research for tomorrow. This is just the way our country approaches this question, participating as much as we can in basic outer space investigation.

(Mr. Rychlewski, Poland)

Let me summarize my brief statement in the following way: Let us not forget that because of the fact of this very meeting we have an obligation to those enthusiasts from the Soviet Union, the United States of America, Germany and other countries, who for a very long time and in a very active way have been dealing with outer space research questions reaching far into the future. Therefore I once again propose that we include, very attentively and in due fashion, scientific-technical questions in the agenda of the second conference.

Mr. CARAZO (Venezuela) (interpretation from Spanish): Mr. Chairman, the delegation of Venezuela wishes to express its pleasure at seeing you again presiding over our Committee, and we wish to acknowledge the efforts and devotion you have brought to bear to ensure the success of our work.

With your permission, Sir, and bearing in mind the wise decision that our discussion should be flexible, we have availed ourselves of this opportunity to speak under agenda item 3 "General exchange of views".

At the beginning of the twenty-second year of activity of the Committee on the Peaceful Uses of Outer Space, the delegation of Venezuela wishes to say that these years of work in the United Nations have been of signal importance since they have enabled us, through the valuable means our Organization offers us, to follow closely developments in the activities of States in outer space. Many stages have been passed and many others are now fully under way. Daily more and more countries are joining in the use of the new technological resources that are made available by current space programmes. Of course, Venezuela is part of this movement since our accelerated development has led us to use the new space technology more and more. Indeed, we feel obliged to strive to see to it that the "peaceful use" concept is maintained in order to avoid a situation in which outer space may one day be used for military purposes.

In looking at the reports of the two Sub-Committees which share the work of this Committee, we feel like others before us that there are areas in which some progress has been made and others where stagnation has been evident for many years. In particular, we are worried about the lack of progress in the item on direct television broadcasting by satellite and various important draft articles of the treaty relating to the moon. Venezuela's position in this regard has already been expressed on various occasions and we shall not repeat it now. We wish, however, to express our thanks to those delegations that have submitted papers which can still serve as a basis for future discussions, always bearing in mind the importance of consensus in our decision-taking. We acknowledge the efforts of the delegations of Canada and Sweden in submitting a clean text on direct television broadcasting, and those of the Austrian

(Mr. Carazo, Venezuela)

delegation whose preliminary draft treaty relating to the moon we would have been ready to support. None the less, we are not pessimistic and we think that it is worth while continuing to strive to reconcile points of view in these two areas and, therefore, we do not share the view of some delegations that for the time being at least we should set aside those items which offer only slight prospects of progress. Because if we were to file those papers they would lose currency and we would be declaring ourselves incapable of reconciling our positions.

We continue to urge that we see no valid reason for not including on the agenda of the Legal Sub-Committee an item entitled "Legal aspects of the use of nuclear power sources in outer space". That initiative, promoted by the delegation of Canada, was most enthusiastically supported by many delegations, including Venezuela. The initial work of the Working Group on the use of nuclear power sources in outer space, at the level of the Scientific and Technical Sub-Committee, offers encouraging prospects and we find no well-grounded argument why an immediate start to an analysis of the legal aspects which should regulate those activities cannot be made.

As for preparations for the convening of the second United Nations Conference on the Exploration and Peaceful Uses of Outer Space, we are encouraged by the thought that with proper and careful planning that Conference can provide the useful results we all desire. We feel that the Conference should as a priority take up a number of matters involving a great many of the interests of the developing countries. From that Conference international co-operation between developed and developing countries should emerge strengthened in terms of the peaceful uses of outer space and the meeting should not simply serve for an evaluation of the progress made in the last 12 years or so. Therefore, it is our duty to frame a recommendation to the thirty-fourth session of the General Assembly on this major issue.

The delegation of Venezuela will close this short general statement of position by making reference to what was said on 20 June by the delegation of Italy relating to the demilitarization of outer space, in accordance with the proposal made by Italy to the Disarmament Committee at Geneva, for

(Mr. Carazo, Venezuela)

the drafting of an additional protocol to the 1967 Treaty on outer space, so as to up-date the existing legal system by new provisions.

We are absolutely convinced that outer space must be included among the areas which should be free from any arms race activities.

Mr. ELARABY (Egypt): Mr. Chairman, at the outset I should like to express the satisfaction and pleasure of my delegation to see you presiding once more over our deliberations. The Outer Space Committee has been privileged indeed to have as presiding officers ambassadors from Austria who, from its very inception over 20 years ago, have devoted their time and talents and offered wise guidance and leadership. I am confident that under your able chairmanship, the Committee will during this session be able to make progress.

Our appreciation goes also to the other officers of the Committee as well as to Mr. Perek, Chief of the Outer Space Affairs Division and his able colleagues for their dedication to their work and for their valuable advice and assistance.

Turning now to the items under consideration, my delegation will confine itself at this stage to a few brief remarks on certain items that the two Sub-Committees have considered.

(Mr. Elaraby, Egypt)

My delegation takes note with satisfaction of the fact that in certain areas agreement was reached during the work of the two Sub-Committees. However, it is significant that with respect to several important items on our agenda, progress, let alone agreement, eluded us. I shall cite three examples. The first concerns remote sensing. We regret that there was no progress on the guiding principles, especially on the need to obtain approval of the sensed State in advance, the right of the sensed State or States to obtain all the information regarding the sensed area, and the transfer of information to a third party only with the prior consent of the concerned State or States.

My delegation regrets also that we could not reach consensus on the establishment of a panel of experts under the auspices of the United Nations, although this matter has been under consideration for several years.

My delegation also proposed the establishment of a United Nations remote sensing centre to direct and operate remote sensing programmes for the benefit of all countries in general and developing countries in particular. We do hope that the space Powers will assist the United Nations to realize such a project, especially by building multi-purpose satellites which will indeed reduce the costs and minimize the traffic in outer space and especially in the geostationary orbit.

While on the subject of remote sensing, I should like very briefly to relate some of Egypt's national activities in this context.

The remote sensing centre in Cairo will organize and play host to the international conference on remote sensing which will be convened in January 1981. It is relevant in this respect to mention that in October 1978 a conference on the role of space technology in development was held in Egypt. The Academy of Scientific Research and Technology in Egypt organized the conference with the aim of highlighting for the African and Arab Governments and peoples the importance of utilizing the advanced technological applications for development in the fields of telecommunications, meteorology, survey of land resources, public health, agriculture and scientific research.

(Mr. Elaraby, Egypt)

In this regard, I wish to repeat the gratitude of my delegation for the recommendation adopted by the Scientific and Technical Sub-Committee this year, that the centre in Cairo, as well as four African regional centres should receive technical assistance and co-operation from the United Nations.

My delegation was disappointed that we have not been able to reach a consensus on the consolidated text presented by the delegation of Austria on the treaty on the moon, which could be considered as a balanced and reasonable compromise. The conclusion of the treaty should confirm, *inter alia*, that the moon and other celestial bodies and their natural resources are the common heritage of mankind. We hope that the Committee will reach a consensus on this matter during its next session. We were encouraged by certain statements made during the debate on this subject and we hope that they will be followed up and that we shall soon be able to reach a consensus on the text proposed by the delegation of Austria.

I wish to turn now to the question of direct broadcasting by satellite. Prospects have been clouded by the fact that we have reached a serious impasse in our work and there has even been retrogression in certain areas. Discussion on some articles that we had already agreed upon in the course of previous sessions of the Legal Sub-Committee was reopened and the previous consensus was almost shattered. The Chairman of the Legal Sub-Committee, Mr. Wyzner, was kind enough to ask me to preside over the work of the Working Group. I shall not, in this statement, make any attempt to analyse the reasons for our failure to reach agreement in the Legal Sub-Committee. My delegation still entertains the hope that perhaps informal consultations, which might be conducted in parallel with our meetings here, could clear some of the obstacles and prepare the ground for the much desired progress. In the view of my delegation, the Canadian-Swedish clean text is worthy of our support and we hope that it will soon be adopted. I wish however, to point out that my delegation, as well as the overwhelming majority of delegations of developing countries, realize that every effort should be exerted so that the rapid developments of outer space technology can be harnessed for the benefit of mankind, that outer space technology will always respect the

(Mr. Elaraby, Egypt)

sovereignty, territorial integrity and political independence of all States, and that the appropriate legal norms to regulate peaceful outer space activities will soon be drafted. We cannot afford to continue to see legal norms lagging far behind technological developments.

On the question of the preparation of the second Outer Space Conference, the Technical and Scientific Sub-Committee has achieved considerable progress and we hope the remaining outstanding issues can be resolved. Adequate preparation for the Conference and for the studies which will be presented during the Conference is much needed to emphasize the necessity of widening the scope of the practical application of space science as well as the central role that the United Nations can perform in this regard.

My delegation wishes to express its appreciation for the gracious offer from the Soviet Union to act as host to the Conference. The magnitude of space achievements and the wealth of experience attained by Soviet scientists would, no doubt, enrich the proceedings of the Conference and, in the view of my delegation, contribute greatly towards its success. We hope the question of the venue of the Conference can be decided during this session so that the Working Group under the chairmanship of Mr. Yash Pal can proceed with its work.

Another area in which we have achieved progress is the question of the use of nuclear power sources in outer space. The work done by the Working Group of experts was encouraging and constructive.

My delegation believes that the question of nuclear power sources should be included as a separate item on the agenda of the two Sub-Committees for next year. The Legal Sub-Committee could start work to elaborate the necessary legal measures and binding obligations in two areas already dealt with by the Scientific and Technical Sub-Committee, namely, notification prior to launching or possible re-entry of space craft, and emergency assistance. It is appropriate at this stage to deal with these two questions, followed by other accomplishments of the Scientific and Technical Sub-Committee.

(Mr. Elaraby, Egypt)

In this regard, my delegation has proposed the establishment of an adequate global tracking system for use in emergencies in order to ensure better information and earlier prediction of the time and location of re-entering and subsequent debris impact.

The machinery established by the United States and the experience gained in tracking and predicting the time and location of the re-entry of SKYLAB could be useful for any step to be undertaken in this field by the Committee.

My delegation notes with appreciation the various activities undertaken by the United Nations Space Applications Programme, notwithstanding the funds allocated, which are rather limited and consistently fall short of the sum requested by the United Nations Expert. In this regard, we pay a tribute to the United Nations Expert on Space Applications, Mr. Murthy, who will soon retire from the United Nations: we should like to express our appreciation for his work and his tireless efforts. We wish him all the best, as he really deserves after such devotion to his work. We welcome the new Expert, Mr. Padang, who will take over as head of the United Nations Space Applications Programme, and wish him success in his new assignment.

Before concluding, I should like to turn to another important subject which is not on our agenda but is one which we cannot ignore. To complete our endeavours to confine the uses of outer space to peaceful purposes, the increase in military activities in outer space should be considered. The activities of the space Powers have passed the stage of observation; they are increasingly using satellites for military purposes and those satellites have become part of the strategic weapons arsenals of both Powers.

(Mr. Elaraby, Egypt)

This prompts my delegation to consider the advisability of examining certain gaps in the Treaty on Outer Space of 1967, with a view to adapting it to the very rapid technological developments and changes. We hope that the report will reflect this concern, which, I am sure, is widely shared.

The CHAIRMAN: There are no further speakers on agenda item 3, but before taking up agenda item 4 I now call on the representative of France, who wishes to make a brief observation.

Mr. RICHER (France) (interpretation from French): The Secretariat at our request has been kind enough to provide us with a list of conferences to be held in 1981, 1982 and 1983. This list seems to me to be incomplete. I believe that we should note - and this is very important for the decision we shall have to take - that the International Telecommunication Union (ITU) will hold a meeting of plenipotentiaries in September 1979. It seems that that information has not been included in the document furnished to us by the Secretariat.

APPLICATIONS OF SPACE SCIENCE AND TECHNOLOGY AND ACTIVITIES IN OUTER SPACE

- (a) REMOTE SENSING OF THE EARTH BY SATELLITES
- (b) DIRECT TELEVISION BROADCASTING BY SATELLITES
- (c) DEFINITION AND/OR DELIMITATION OF OUTER SPACE AND OUTER SPACE ACTIVITIES, BEARING IN MIND, INTER ALIA, QUESTIONS RELATING TO THE GEOSTATIONARY ORBIT
- (d) SPACE TRANSPORTATION SYSTEMS
- (e) USE OF NUCLEAR POWER SOURCES IN OUTER SPACE
- (f) EXAMINATION OF THE PHYSICAL NATURE AND TECHNICAL ATTRIBUTES OF THE GEOSTATIONARY ORBIT
- (g) DRAFT TREATY RELATING TO THE MOON

Mr. TORRES (Chile) (interpretation from Spanish): My delegation would like to refer briefly to some of the subjects included under agenda item 4.

With reference to remote sensing, an item which is being discussed in both its technical and its legal aspects by the two subsidiary bodies of this Committee, we have witnessed some progress, especially new ideas with regard to the technical and scientific aspects.

(Mr. Torres, Chile)

We view with much interest the request addressed to the Secretariat by the Scientific and Technical Sub-Committee to prepare a document on the so-called element of effective resolution, since that document will undoubtedly help us to clarify various aspects of the criterion of the classification of data obtained by satellites.

Furthermore, we have studied the proposal put forward at the last session of that Sub-Committee to the effect that a catalogue of applications of remote sensing should be drawn up. We understand that it would be useful to consider this proposal on the understanding that its primary function would be to facilitate access to and use of remote sensing techniques appropriate to the developing countries.

We also appreciate the efforts that this body might make to promote greater compatibility among the various remote sensing systems.

With reference to the legal aspects, there are still divergences which are preventing the conclusion of a set of regulations governing this activity which is so widespread throughout the world. We feel that in view of its importance we should make fresh efforts to resolve such questions as prior notification and the régime governing the dissemination of remote sensing data. My delegation considers that some kind of prior notification mechanism should be included in the principles, so that contacts of effective co-operation could be established among the countries involved. With reference to the régime of the dissemination of the data obtained, we consider that an intermediate solution could be found by making the prior consent of the sensed State obligatory with reference to data, the dissemination of which to third parties is regarded by the sensed State as contrary to its interests.

With regard to direct television broadcasting, on which substantial progress was made at the last session of the Legal Sub-Committee thanks to the efforts of Canada and Sweden, my delegation wishes once again to express its opinion that there exists a central element on which other principles relating to such broadcasting rest. We believe that it is timely to point out again that the only way to guarantee co-operation and facilitate the free dissemination of information and ideas is through consultations in order to arrive at agreement among the States concerned.

(Mr. Torres, Chile)

Referring to the treaty relating to the moon, we must say that the delegation of Chile shared the optimism felt by most delegations at the beginning of the eighteenth session of the Legal Sub-Committee, because we thought that the draft presented by Austria would generally be acceptable to all delegations. Unfortunately, this was not the case, as there continues to be a central divergence of views with regard to the status of the moon and its natural resources as well as to other minor points. We believe that we could still concentrate on the fundamental questions that are preventing us from completing the drafting of the treaty and we pledge our co-operation in this respect. For that reason, we are pleased at the decision adopted by this Committee at the beginning of this afternoon's meeting to continue work on this subject in an informal working group starting next week.

With reference to the use of space transportation systems, my delegation feels, as it has recently informed the Secretariat, that the new applications and possibilities arising from the operation of such systems, together with the appreciable reduction in operating costs, should pave the way for new forms of co-operation and assistance that will allow all States to take part in research in and the use of space.

In this respect we think that it is essential to establish appropriate information channels concerning the way in which countries not possessing the techniques or the means for space research could benefit from those systems.

Mr. OSAH (Nigeria): Mr. Chairman, the Nigerian delegation is pleased to see you once more as Chairman of this Committee. We have every confidence in your ability to direct and guide this Committee to a successful completion of its mandate and wish to assure you of our fullest co-operation.

At the twenty-first session of the Committee held last year our delegation expressed concern about the organization of this Committee. It is our view that our Committee could be more productive in terms of human and material resources, if it did not hold sessions of the subsidiary bodies which take up a total of nine weeks within a calendar year. At each session of this Committee or its subsidiary bodies, valuable time could be saved if delegations addressed themselves to specific issues of topical importance.

(Mr. Osah, Nigeria)

We also believe that very little time is devoted to substantive work, and in most cases the Committee merely endorses the reports of its Sub-Committees. It is the view of the Nigerian delegation that the Committee and its subsidiary bodies should meet concurrently once a year for a maximum of six weeks - and we hereby counsel this strongly. At each of these sessions, the Committee should meet in plenary meetings for about one week and then break up into the two working groups for about three weeks. The main Committee should then reconvene in plenary meetings for the last two weeks to consider the reports of the Sub-Committees and adopt its report for the session. The above suggestion has several obvious advantages, and we hope that it will be considered seriously.

The Nigerian delegation has repeatedly voiced its approval for most of the United Nations space application programmes, particularly in the area of the remote sensing of the earth by satellites for the determination of the valuable economic resources that lie beneath the earth's surface. Nigeria is particularly pleased and very grateful to the United Nations and the United Nations Food and Agriculture Organization (FAO) for organizing the seminar on remote sensing scheduled to be held in Ibadan, Nigeria, from 13 to 31 August 1979. Several participants in the programme in Nigeria are anxiously looking forward to this seminar. Meanwhile, we wish to extend a warm welcome to our country to all participants, particularly those presenting papers.

(Mr. Osah, Nigeria)

Nigeria has repeatedly expressed the view that the dissemination of data obtained by remote sensing must be subject to the prior consent of the sensed State and should be made available freely to it as an expression of respect for its sovereignty. They should therefore not be distributed to third parties without the consent of the sensed party. The regional sensing centre in Ouagadougou, Upper Volta, should at least, we hope, co-ordinate all such activities within that region.

So that the full benefits may be derived from the data obtained in any remote sensing exercise, such data must be classified before distribution and dissemination. This process is essentially a highly technical one that requires the full attention of scientific experts specially trained for such purposes. Therefore, for any free flow of data to be meaningful and acceptable, such data must have been duly processed by that team of experts. In this regard, Nigeria therefore calls for the establishment of a panel of experts on remote sensing. Such a panel would serve as a key element in the co-ordinating efforts of the United Nations in future operational remote sensing systems. The view has been expressed that such a panel would not be functional and that the duties it is called upon to perform would be better served through bilateral and multilateral arrangements. However, it is the view of the Nigerian delegation that the co-ordinating role of the United Nations in remote sensing is paramount and at the very least in the best interests of the developing countries. Nigeria, like many other developing countries, does not have the resources to shoulder the scale of what is required without massive external assistance.

A number of ground receiving and processing stations are being set up in different parts of the globe to obtain remote sensing information about States which were neither consulted nor thought of before such stations went into operation. Furthermore, the self-generating momentum of space technology has led to the proliferation of various categories of hardware systems. Today, the lack of standardization in the equipment for both the space and the ground segments of remote sensing suggests that there will be a number of difficulties in the immediate future in transferring remote sensing knowledge and technology to

(Mr. Osah, Nigeria)

those not in a position to establish a system of their own, especially the third-world countries. Nigeria believes, therefore, that the United Nations is the appropriate forum for international co-ordination and collaboration and that the co-ordination being undertaken outside the United Nations at this time and in future should, in no circumstances, preclude a future United Nations co-ordinating role in remote sensing.

With reference to the use of nuclear power sources in outer space, no one can deny the danger posed by the uncontrolled re-entry of such space objects. There have been several space objects that have fallen accidentally: we recall the United States' TRANSIT-3A which fell on Cuban soil in 1960 and killed a cow, and the Soviet Union's COSMOS-954 which fell on Canadian soil in 1978. We are yet to register the fall of the United States' SKYLAB.

In view of the aforementioned accidents, no one can deny the great danger involved in the event of an uncontrolled re-entry into the atmosphere of any space objects, particularly when they carry nuclear power sources. Nigeria therefore associates itself with all those recommendations calling for assistance and training to be provided through the appropriate international channels to personnel of States requesting training on hazard evaluation following re-entry of a space object with a nuclear power source. Such training should also cover pertinent search and recovery and emergency planning operations. Due notification to all States through the United Nations would greatly facilitate the proper handling of all radioactive materials produced by such disintegration.

The Nigerian delegation however has noted with satisfaction the very useful and valuable information given by the United States on the imminent re-entry of SKYLAB and the willingness of the United States Government to assume full responsibility for all its international obligations, as contained in the 1971 Convention on International Liability for Damage Caused by Space Objects. However, we appeal to the United States to do all within its technological competence to control the re-entry, if possible.

(Mr. Osah, Nigeria)

The Nigerian delegation will take a closer look at the working paper submitted by Canada and Sweden before offering further comments on direct television broadcasting. The Nigerian delegation is not unmindful of the advantages to be derived from such direct television broadcasting, but we certainly do not welcome the idea of indiscriminate dissemination of news. While we acknowledge that such programmes may enhance the educational, economic and social well-being of our people, there might be occasions too when such programmes could be abused in the less developed regions. Perhaps a compromise solution could be found whereby indigenous regional groups of experts under the auspices of the United Nations could screen and scrutinize all such programmes before they that region. The group of experts should, in our view, determine the quality and suitability of such undiluted information or news and, above all, the impact that it would have on the nationals of their countries.

The Nigerian delegation notes with regret the inability of the Legal Sub-Committee to resolve the outstanding issues on the draft treaty relating to the moon. We are fully aware of the difficulties confronting the Legal Sub-Committee which we know have both legal and political implications. It would be wishful thinking to expect this Committee at its current session to reach any agreement on all issues. The proposed treaty on the régime of the moon and other celestial bodies is gradually running into problems similar to those that the Conference on the Law of the Sea has been experiencing, and one can only hope that the delay will not be another excuse for any unilateral national legislation regarding the beneficial exploitation and exploration of the moon, since that would be prejudicial to the work of this Committee. The Nigerian delegation feels that the draft proposal submitted by Austria provides a good basis for further consideration.

A cursory look at the agenda of the Legal Sub-Committee reveals also that not much can be expected of that body in three weeks, given the complexity of the problems with which it has to deal. This parent Committee should therefore consider as a matter of urgency pruning those items or giving greater priority to an item such as the draft treaty relating to the moon.

(Mr. Osah, Nigeria)

Finally, the Nigerian delegation looks forward to the proposed United Nations Conference on the Peaceful Uses of Outer Space in 1982 and will make its views known at a later date as to the venue. We shall offer our views and suggestions on the Conference's programme at the level of the Working Group, in which we shall participate.

Mr. GAVIRIA (Colombia) (interpretation from Spanish): May I begin by saying how pleased my delegation is at seeing you, Mr. Chairman, again presiding over our discussions. We are sure that under your leadership our work will have a positive outcome.

My delegation wishes to avail itself of this opportunity to comment on some aspects relating to agenda item 4, entitled "Application of space science and technology and activities in outer space". Although the main topic with which we shall deal fundamentally concerns subitems (c) and (f), none the less we wish to reiterate our position concerning the remote sensing of the earth by satellites.

On various occasions we have stressed the need for an appropriate legal régime able to guarantee the sensed State due access to data and information obtained on its territory, in particular when through remote sensing by satellites there could be an adverse effect of any kind on the permanent sovereignty of States over their natural resources.

(Mr. Gaviria, Colombia)

With all this in mind, my delegation is ready to co-operate closely in the quest for a satisfactory approach acceptable to all States.

With reference to subitems (c) and (f) dealing with the geostationary orbit and the definition and/or delimitation of outer space, it is relevant to recall Colombia's position and that of the other equatorial States.

Although Colombia had already stressed the need to draw up legal definition of outer space and geostationary space communications in the General Assembly at its thirtieth and thirty-first sessions, it was at the 1976 Bogota meeting that Colombia's position in this respect was made official.

Indeed, Colombia, together with the other equatorial countries, on 3 December 1976 signed a document that summed up the position of the equatorial States. The physical nature and the technical attributes of the geostationary orbit are thus defined: they are physical phenomena related to the phenomena of our world in that their existence depends exclusively on their relationship to the gravitational pull of the earth. Hence, the segments of the geostationary orbit are regarded as an integral part of the territory over which States exercise their national sovereignty. Therefore it is clear that for the equatorial countries the geostationary orbit must be seen as separate from outer space.

The equatorial States consider that the geostationary orbit is a finite natural resource over whose segments they can exercise sovereign rights. This has been laid down in General Assembly resolutions 2692 (XXV) and 3281 (XXIX).

None the less it is worth recalling that the equatorial countries, as is laid down in the Bogota Declaration, have no pretensions to exercising sovereign rights arbitrarily but rather wish to exercise these rights in a way that will bring true benefit to their peoples and to the international community in general and, of course, especially to the developing countries.

The equatorial countries' rights are confined to those segments of the orbit that pass over their territory, and they have never claimed to exercise those rights over the high seas because those segments are part of the common heritage of mankind. Neither will they hamper free passage through the orbit or the right of communication required by satellites authorized by the International Telecommunications Convention when they are in transit in their territorial sky in gravitational flight outside the geostationary orbit.

(Mr. Gaviria, Colombia)

Another thing is that, within the context of the sovereignty claimed by the equatorial States, those States object to the emplacement of objects in a fixed position in the segment corresponding to their respective territories. The emplacement of any object in those segments must be authorized by the State in question and the operation of such objects regulated by national law.

I have brought up these principles and this background information not only because they are directly related to our agenda but also because the equatorial countries, aware of the dangers of the saturation of the geostationary orbit, have agreed internationally to concert their efforts to seek a legal régime that would duly protect their interests.

In furtherance of this policy, the Ministers for Foreign Affairs of Colombia and Ecuador, as representatives of two sovereign nations, in a joint statement of 2 March 1979 said that they

"Reiterate their sovereign rights over their respective segments of the geostationary synchronous orbit and concur in the appropriateness of co-ordinating with other equatorial countries international action to defend such rights, and to this end agree to convene a new meeting of such countries to be held in the city of Quito, if possible during this year".

That was a simple repetition of a sufficiently well-known position, and was in no way intended to undermine the international order, as was surprisingly maintained by the Soviet delegation, unless the United Nations can call subversive those nations which simply judge or question certain systems or principles, as is the case of those who maintain the need to have a new international economic order or who wish to abolish all forms of obsolete colonialism.

For the rest, my delegation has already had the opportunity to make reference to the SALT II Treaty during the discussions in the Disarmament Commission. But to the reply to the concerns of the Soviet delegation, my delegation would like to repeat its concern over the problem of the verification of disarmament agreements and therefore views sympathetically the French proposal to set up an international body under United Nations auspices for satellite monitoring of disarmament agreements.

(Mr. Gaviria, Colombia)

But, to return to what I was saying about the position of the equatorial countries, my delegation does not wish to let pass without comment the fact that the equatorial countries, at the invitation of Colombia and Ecuador, had the opportunity of meeting in New York on 15 June 1979. Among other things, the possibility was studied of considering the conclusion of a treaty or convention on the geostationary orbit. Of course, this will be complemented by a number of periodic consultations to be held at a future date in order to co-ordinate a joint position in various international meetings of the United Nations and the ITU.

In subitem (c) of agenda item 4, there is mention of the delimitation and/or definition of outer space, taking into account questions relating to the geostationary orbit. My delegation already had occasion to express its interest in our tackling a definition of outer space. Despite objections expressed in that regard, we think that there are enough reasons for a proper definition of outer space to be sought. It is well known that none of the international instruments in force define what is understood by outer space. The Treaty relating to the moon and other celestial bodies, signed on 27 January 1967, the 1968 Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space and the Conventions on International Liability for Damage Caused by Space Objects and on Registration of Objects Launched into Outer Space all fail to set forth what is understood by outer space.

This lacuna is of signal importance in view of what the 1967 Outer Space Treaty says regarding the moon. Although article II states that outer space, including the moon and other celestial bodies, is not subject to national appropriation by claim of sovereignty, this provision lacks substance since there is no definition of outer space.

Our delegation has always wondered how it could be maintained that the equatorial countries' claims of sovereignty constituted an infringement of the spirit of the 1967 Treaty. To our way of thinking, that position can ill be defended. It can hardly be said that the equatorial States are trying to ignore the provisions of the Treaty when there still is no definition of outer space and when, consequently, it has not been established that the geostationary orbit is part of such outer space. This is not the place to repeat my delegation's reservations concerning this instrument, but it is timely to stress its enormous lacunae and inconsistencies.

(Mr. Gaviria, Colombia)

The proof of this is that many delegations not from the equatorial countries have expressed criticism of it during this debate and at present are studying the possibility of supplementing the Treaty's provisions with another treaty concerning the moon.

To our way of thinking, the 1967 Treaty of necessity calls for a review that would, among other things, envisage a definition of outer space, but, of course, one that would take into account the special characteristics of the geostationary orbit and establish an appropriate legal régime that would guarantee the equatorial States exercise of their rights over the segments pertaining to them.

My delegation is pleased that the next United Nations Conference on the Exploration and Peaceful Uses of Outer Space will take up all those legal aspects that are so crucial to the international community and that there will not be any limitation on examining the scientific and technical aspects of the progress made in the use of outer space.

Mr. SANCHEZ PENA (Argentina) (interpretation from Spanish): At the fifteenth session of the Scientific and Technical Sub-Committee, in 1978, and during the twenty-first session of the General Assembly, the delegation of Argentina was one of the first to express concern at the use of nuclear power sources and the dangers and hazards that could arise from that technology in the event of minor malfunction or accidents.

At the last session of the Scientific and Technical Sub-Committee we took an active part in its work on nuclear power sources. We again stressed the need for all countries to have access to basic information relating to the evaluation of hazards and risks and search-and-recovery operations concerning such power sources so that they could objectively exercise their sovereign rights should they have to decide how to deal with such an emergency.

In this regard our delegation supports the proposals to regulate nuclear power sources in outer space, just as it supports the idea of prior warning for fundamental reasons of safety in the long and the short term. We think that there should be special responsibility from the time of launching until the time of return - in other words, at every moment in which the spacecraft is subject to any kind of malfunctional problem or any emergency on board. At the same time, we feel that we could use as a point of departure the principles set forth in the Convention on International Liability for Damage caused by Space Objects which has been in force since October 1973, and go ahead and deal with specific cases not dealt with in that Convention. My delegation feels that for those countries that do not have this kind of technology - and we understand that they form the vast majority - the problem amounts to the prevention of a possible emergency or the procedure in the event of such an emergency.

My delegation would like to see studies encouraged on regulations to govern the eventual liability of States because of the use of nuclear power sources not covered thus far. To that end, as one way of going into the matter in depth through the United Nations Programme of Space Applications, meetings could be held to specify, through the use of experts, the capacity of any country to deal with an emergency and a recovery operation. My delegation feels that at its next session the Scientific and Technical Sub-Committee should include that in its programme of work when it deals with the work to be carried out in the Space Applications Programme. We feel that at its next session the Legal

(Mr. Sanchez Pena, Argentina)

Sub-Committee should seek to establish legal norms for the regulation at the level of international law of a matter of such importance to the safety of States at any given time.

Mr. SERBIN (Union of Soviet Socialist Republics) (interpretation from Russian): My delegation would like to dwell for a moment on the matter of the use of nuclear power sources in outer space.

First of all we should like to express our satisfaction with the last session of the Scientific and Technical Sub-Committee, for which this was a new question. We thank Mr. Carver and Mr. Jasentuliyana for the competent guidance they gave the Working Group on this question. We would likewise thank all delegations working on this question constructively and fruitfully.

On the other hand, we should like to point out that we are perhaps over-exaggerating the hazards involved in the possible return to earth of space objects. At this session, much has been said about the return of SKYLAB. In our view the possible hazards involved in the return of SKYLAB have been greatly exaggerated. However, our delegation is prepared to continue to work on regulation of the use of nuclear-power sources in outer space in accordance with the recommendations contained in the report of the Working Group on this question. It is our hope that, in keeping with those recommendations, within the time-frame indicated in the report of the Working Group - namely, for the provision of new material by September - we are prepared to hold preliminary consultations prior to the next session of the Scientific and Technical Sub-Committee in November and December of this year.

During the course of this week's discussions in our Committee it has been proposed that the Working Group should meet before the session of the Scientific and Technical Sub-Committee. In our country we say that if something is good enough we should leave well alone. It seems to us that the fruitful experience we had in the Scientific and Technical Sub-Committee in February indicated that we should leave it as it is, and that there is no need to change its method of work.

(Mr. Serbin, USSR)

We should like to dwell upon another question. In earlier discussions, many delegations were pessimistic in their assessment of the work of the Legal Sub-Committee, but we cannot agree with such an assessment. There were proposals that the Legal Sub-Committee should not deal with questions that would lead it into a dead end. To us that seems that that very logical argument was not thereafter reaffirmed by proposals to discuss the question of nuclear power sources in space right now in the Legal Sub-Committee. We think that that would be premature and might cause difficulties for the work of that Sub-Committee.

The CHAIRMAN: I now call on the representative of the International Civil Aviation Organization.

Mr. ZHUKOV (International Civil Aviation Organization (ICAO))
(interpretation from Russian): The International Civil Aviation Organization, which comprises 144 States, is following with interest the work being done in this Committee under your guidance. We are trying to co-operate with all States in all areas in the peaceful use of outer space.

ICAO is also attentively following the discussions in the Committee on questions linked to the delimitation of air space and outer space. For us, space problems are interesting only to the extent that they touch upon or may touch upon the interests of international civil aviation. Naturally, questions of the geostationary orbit concern an area too high up in space to affect civil aviation and it is difficult to claim that the organization I represent here as an Observer might be of help in solving or even approaching a solution to that question.

With regard to the question of the delimitation of outer space and air space, it is on the work of our organization that the Chicago Convention is based which, in one of its first articles, confirms the principle that States should enjoy complete sovereignty over their own air space. Naturally, if there comes a stage where, from the point of view of the interests of international civil aviation, the safety of flights and the question of the right of free passage for space objects through air space take on specific urgency - that is, of course, when air space is finally defined and also when we know exactly what objects are considered as space objects - then, indeed, it is possible that the opinions of ICAO might be useful in the discussion of that question.

Here in the discussion of this question and the definition of ICAO's position I should like to make a clarification. First of all the question of the delimitation of air space and outer space has not been discussed in ICAO. We have taken no decision on that matter nor have we adopted any position shared by the 144 members of that organization. However, if at any stage in its further work, the Committee feels that the consideration of ICAO on this question may be useful, and if it requests information on that from us in a General

(Mr. Zhukov, ICAO)

Assembly resolution then I am empowered to state here, on behalf of the administration of ICAO, that we would be prepared then to conduct the appropriate research.

The procedure for such research is rather complicated. We take a decision on the basis of the agreement of all the States. That, however, requires time and so if there was any justification for feeling that our opinion might be useful and might facilitate the approach to this problem, then I would think that such a request should be made as soon as possible because, and I must be quite clear on this, we would not be able to give you an answer in one, two or three months. It would require perhaps a year or maybe longer. That is to say, we would require time to study the questions and the opinions presented by States and then to consolidate them. That is by way of clarification in the consideration of this question.

In this connexion, I should like to point out that with regard to our attitude towards the delimitation of air space and outer space we do not claim in any way to usurp the competency of the Legal Sub-Committee or the Committee on the Peaceful Uses of Outer Space. We are prepared to help, if people ask us to do so. If people do not ask, then we shall not deal with such questions.

I thank you for your attention and for giving me the opportunity to speak here on the position of ICAO.

ORGANIZATION OF WORK

The CHAIRMAN: Before I adjourn the meeting, I should like to review briefly our work for next week.

First of all, let me express satisfaction at the fact that we have had 33 speakers on item 3 and a very helpful and lively exchange of views. The general exchange of views now under way is clarifying a great many matters and has enabled us to set up a Working Group to review one of the outstanding questions before this Committee, namely, the draft treaty relating to the moon.

(The Chairman)

I hope that that Group, as well as the other Working Group on the Conference, which we have set up, will be able to meet early next week and to make speedy progress.

So far as the programme for next week is concerned, I should like to remind members that according to the schedule of work which we adopted earlier this week, on Monday morning we shall begin consideration of agenda item 5 entitled "Programmes and activities relating to outer space in the United Nations". That will make it possible for us to review the United Nations Programme on Space Applications and the co-ordination of outer space activities within the United Nations system. I urge members to indicate to the Secretariat perhaps even by the close of the afternoon, whether or not they wish to speak on that subject on Monday morning. I also urge those delegations which still intend to speak on items 3 or 4 to do so on Monday morning. One or two delegations have put their names down for agenda item 4 and indicated their intention to speak on Monday afternoon. However, I would suggest that we try to concentrate our consideration of those items, and especially item 5, on Monday morning so that the Working Group on the Conference could begin its work on Monday afternoon. That work could then be continued on Tuesday morning, 26 June, and Tuesday afternoon could be dedicated to the Working Group on the draft treaty relating to the moon. That would enable us to make full use of the facilities at our disposal next week. I suggest that we keep that in mind when we return here on Monday morning.

Before we adjourn may I remind delegations of the invitation we received yesterday from the United States delegation to attend the celebration of the 10th anniversary of the landing on the moon which will be held in approximately one hour's time near the visitors entrance to the United Nations. In that regard it gives me pleasure to note the presence among us of one of the speakers at that event, Mr. Robert Frosch, Administrator of the National Aeronautics and Space Administration (NASA).

The meeting rose at 5 p.m.