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

Held at Headquarters, New York,
on Friday, 30 June 1978, at 3 p.m.

Chairman: Mr. JANKOWITSCH (Austria)

General debate (continued)
Report of the Scientific and Technical Sub-Committee
Report of the Legal Sub-Committee
Question of convening a United Nations conference on outer space

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The meeting was called to order at 3.25 p.m.

GENERAL DEBATE (continued)

Mr. GREET (Australia): In speaking at this closing stage of the general debate, I should like to acknowledge the significance of the work of the Committee on the Peaceful Uses of Outer Space and to record the importance that the Australian Government attaches to its association with the Committee.

I should also like to express warm appreciation to those representatives who have referred in such complimentary terms to the contribution that Mr. Carver has made to the Committee's work through his chairmanship of the Scientific and Technical Sub-Committee.

I take this opportunity, too, to express through you, Mr. Chairman, a welcome to the new members of the Committee.

Previous speakers have very adequately described the major developments in the outer space field that have taken place since the twentieth session of the Committee, and I shall therefore not repeat what has already been said. But because of the topicality of the event, I should at least like to express the congratulations of my delegation to our Polish colleagues on the occasion of Poland's joining the ranks of States whose nationals have flown in outer space.

Australia participated in a range of space activities during 1977 and has reported on them in some detail already to the Secretary-General. Meteorology and communications were, of course, prominent aspects of such activities, in the course of which we were able to work in very close co-operation with a number of other Governments, and I take this opportunity to mention one or two such cases, leaving the general statement to be issued in other ways.

In the field of meteorological research, I might mention that Australia has provided a turn-around ranging station for use in locating the Japanese geostationary meteorological satellite. The latter will provide Australia with regular three-hourly operational information for use in weather forecasting and detection and tracking of tropical cyclones. Australia also received data from the Soviet satellite METEOR during the year in an attempt to obtain greater regional detail.

(Mr. Greet, Australia)

I should not omit reference to the Australian Government's approval of plans to proceed with construction of a LANDSAT receiving station at Alice Springs in central Australia, and a data-processing facility at Canberra. It is expected that the station will be operational by 1979 and that the highly detailed images received will have important applications in fields such as mapping and minerals exploration, the estimating of crop yields, the assessment and management of water resources, the management of land resources and of the environment generally, and in monitoring floods and bush fires.

I should like to comment briefly on three specific issues that are before us at this session: nuclear power sources in outer space, the second United Nations conference on outer space, and the draft moon treaty. The question of the safety factors concerning the use of nuclear power sources in outer space has, of course, been dealt with in both Sub-Committees. My own delegation was one of those at the meeting of the Technical and Scientific Sub-Committee in March which proposed that an ad hoc working group of that Sub-Committee be established to consider and assess relevant factors relating to safety aspects of nuclear power sources. Unfortunately, there was no consensus at that meeting that such a decision should be taken. My delegation recalls, however, that there was an informal consensus to the effect that decisions about the best means of dealing with this question could be taken at this session of the parent Committee. We hope, therefore, that a decision can be taken in the coming days to establish a working group of technical experts. There would seem to be a variety of ways of establishing such a group, and my delegation is prepared to work constructively to secure agreement about this.

(Mr. Greet, Australia)

It is clear that there are a number of legal questions that also have to be considered in this context. We would not wish to see the study of these legal issues delayed. My delegation is inclined to the view, however, that any detailed consideration ought to be based on a full technical appreciation of all aspects of those safety questions arising from the use of nuclear power sources in space.

As is very well known, Australia strongly supports the proposal to convene a second outer space conference and strongly supports the recommendations in paragraphs 110 and 111 of the report that is now before us of the Scientific and Technical Sub-Committee. These paragraphs identify the objectives of such a conference and outline an appropriate agenda. In our view, the report of the Scientific and Technical Sub-Committee provides a very useful and constructive basis on which a further discussion of the proposed outer space conference may proceed. We look forward to participating further in such discussions and hope that the Committee will be able to move forward effectively at this session to refine its thinking so as to clarify the objectives. We feel enough has already been said during this general debate to justify a feeling of optimism that we shall be able to arrive at a successful outcome on this matter.

My delegation was encouraged by the developments at the last session of the Legal Sub-Committee which gave hope that agreement would be achieved on the draft moon treaty. It is our view that the opportunity afforded by this current session of the parent Committee should not be lost to advance the possibility of finally reaching an agreement which has eluded us on this matter for so long.

I have not attempted in this short, rather general statement to cover all the matters that are either before us or of particular concern to my Government, but my delegation will speak later as appropriate when we discuss other specific questions.

The CHAIRMAN: At this point I shall call on the Secretary of the Committee who has a communication that he wishes to make to the Committee.

Mr. ROBINSON (Secretary of the Committee): I should like to make members of the Committee aware of the contents of the following message that was sent to the Secretary-General of the United Nations by the Director-General of the Pugwash Conferences on Science and World Affairs:

"Dear Mr. Waldheim,

"In view of the forthcoming meeting of the United Nations Committee on the Peaceful Uses of Outer Space, I should like to call their attention through you to a relevant section of the report of Working Group 7 at our twenty-seventh Pugwash Conference held in Munich, 24-29 August 1977. This Working Group dealt with environmental hazards of global concern. The section in question dealt with remote sensing and reads as follows:

"Governments and international organizations should insist on the use of the improved methods for remote sensing now available for monitoring composition of and changes in the atmosphere and pollution of the hydrosphere. The United Nations Committee on the Peaceful Uses of Outer Space should propose an international treaty to the effect that the information obtained by remote sensing be made available by a central agency to all countries expressing an interest'.

"I should be grateful if you would forward this information to the United Nations Committee on the Peaceful Uses of Outer Space."

The CHAIRMAN: We have now concluded consideration of agenda item 3, entitled "General debate". We have heard in this debate 38 speakers - representing 34 member countries of the Committee and four specialized agencies and observers - which reflects a very lively kind of debate.

REPORT OF THE SCIENTIFIC AND TECHNICAL SUB-COMMITTEE (A/AC.105/216)
REPORT OF THE LEGAL SUB-COMMITTEE (A/AC.105/218)

Mr. JEZIL (Czechoslovakia): At this stage of our deliberations, the Czechoslovak delegation would like to return briefly to two questions which it already mentioned in the general debate.

At the last session of the Legal Sub-Committee, no progress was achieved in the question of the legal regulation of the remote sensing of the earth from space. It is obvious that progress in this field depends on the settlement of

(Mr. Jezil, Czechoslovakia)

the main issue: this means the question of respect for national sovereignty in carrying out remote sensing of the earth. The basis for a generally acceptable solution of this matter is provided in the proposals of the Soviet Union, the substance of which is that the data acquired by remote sensing of the earth should be divided into two categories, each of which would be subject to a different legal régime. These proposals reflect an endeavour to respect the territorial sovereignty of States whose territory is being photographed.

The strengthening of the role of the United Nations in the remote sensing of the earth continues to be a highly topical question. There is an urgent need for the co-ordination of certain technical aspects so that the activities of the remote sensing systems may in the near future complement each other in an appropriate way and in order to exclude unnecessary duplication. One part of the co-ordinating role of the United Nations is to provide a method whereby the best possible results could be achieved in that respect.

(Mr. Jezil, Czechoslovakia)

A more detailed elaboration of the co-ordinating role of the United Nations in remote sensing, as prepared by the United Nations Secretariat in document A/AC.105/154/Add.2, including the establishment of a panel of experts who would inform and would submit recommendations directly to the Scientific and Technical Sub-Committee or to the main Committee, has attracted due attention and by right received the support of a number of delegations at this year's session of the Scientific and Technical Sub-Committee. The Czechoslovak delegation is of the view that the establishment of the proposed panel of experts is a good way in which to start strengthening the co-ordinating role of the United Nations in this field.

The Czechoslovak delegation is, furthermore, of the view that a speedy solution is needed for the programme for the distribution of data acquired by remote sensing. It supports the proposal by the Soviet delegation to divide these data into two categories - namely, data of a global nature that do not affect the sovereignty of individual States, and data of a predominantly local nature that might affect the interest of the sensed State, the utilization of which thus requires the approval of the sensed State. The dividing line between the two categories would be provided by the actual photographic resolution of 50 metres.

The other question on which the Czechoslovak delegation wished to state its position is that of the legal status of the geostationary orbit. Czechoslovakia holds the view that the geostationary orbit is an integral part of outer space and, as such, is subject to the provisions of the 1967 Outer Space Treaty. At the same time, the Czechoslovak delegation has no objection to consideration of the possibility of a legal regulation of the utilization of the geostationary orbit.

Mrs. WIEWIOROWSKA (Poland): As today brings us new achievements in the domain of the peaceful exploration and exploitation of outer space, the number of countries involved in the space venture is growing constantly. With the widening of space activities new legal problems emerge that should be resolved at the international level.

The achievements of the Outer Space Committee and its Legal Sub-Committee in the process of law-making are highly appreciated by the Polish delegation. We are convinced that it is very important for the law not to fall behind the development of technology in space activities, and we consider it very important to undertake all the efforts necessary to conclude the elaboration of international instruments on the agenda of the Legal Sub-Committee.

One such instrument concerns direct television broadcasting. We can say that the formulation of a number of principles already accomplished is a valid achievement. But at the same time, the Polish delegation is aware of the fact that the principles not yet agreed upon - primarily that of prior consent and consultation - are of crucial importance. We believe that the United Nations cannot let this important instrument of scientific and cultural progress - direct television broadcasting - be misused for a purpose incompatible with the overriding principles of national sovereignty and peaceful coexistence. The cultural heritage of nations must be protected from hatred, abuse or discrimination, and it is for these reasons that we urge all delegations to make all possible efforts to complete the draft principles on the use of artificial satellites for direct television broadcasting.

As the Chairman of our delegation stressed in the general debate, Poland attaches great importance to space applications and to the establishment of legal principles governing these activities. The remote sensing of the earth by satellites is another field of technology of no less importance to States than direct television broadcasting. The application of this technology, if we want it to be advantageous to all countries, must be based on generally recognized international law - namely, the principle of State sovereignty.

(Mrs. Wiewiorowska, Poland)

A good example of how this problem can be solved is the Convention on the transfer and use of data acquired by remote sensing of the earth from outer space signed last May in Moscow by the socialist countries. It is worth stressing that other States endorsing the purposes and principles of the Convention may accede to this instrument.

A number of speakers have been discussing the definition and delimitation of outer space. This subject is fascinating legal theoreticians and for many years has remained on the agenda of the Legal Sub-Committee. There are many reasons for the fact that this problem has not been solved. For space exploration and exploitation a delimitation between air space and outer space has not been necessary for a number of years. But the progress of space technology is so rapid that day by day many problems previously considered theoretical become practical. Among others this is the case with the delimitation of outer space. In our opinion, the proposals put forward during this session by the Soviet Union may be a good basis for our discussion.

We are convinced that all questions on the agenda should be treated in accordance with the principles contained in the Outer Space Treaty. My delegation considers that international practice since the Outer Space Treaty of 1967 went into effect proves that all the principles contained in that Treaty are very important and up to date. These regulations contribute immensely to the continuous development of international co-operation in the exploration and use of outer space for peaceful purposes and in permitting the participation of all countries in the practical application of space technology.

For a number of years Poland has participated in the exploration and use of outer space for peaceful purposes. National space programmes cover many fields. All activities conducted in this domain are based on broad international co-operation, bilateral and multilateral, with full observance of the Outer Space Treaty.

In closing my remarks, may I be permitted to express on behalf of the Polish delegation our sincere thanks for the kind words of appreciation and congratulations addressed to us on the occasion of the participation of the Polish cosmonaut in a manned space flight.

Mr. MAENIGG (German Democratic Republic): It is with great attention that my delegation has taken note of the report of the Legal Sub-Committee on the work of its seventeenth session, as contained in document A/AC.105/218. I wish to deal briefly with two aspects of that report.

To begin with, I should like to state that with regard to the problems relating to direct television broadcasting, my delegation concedes priority to the completion of the draft principles on consultation and agreements between States. My delegation wishes to voice its preparedness to support in this specific field also all proposals which are in line with respect for and observance of the sovereignty of States and the principle of non-intervention in the internal affairs of other States. That is to say that my delegation advocates the elaboration of principles which would ensure that direct television broadcasting by satellites is carried out in such conditions that this new form of space technology will serve the goals of international peace and understanding.

(Mr. Maenigg, German Democratic Republic)

The German Democratic Republic, therefore, holds that direct television broadcasting by means of satellites should be carried out only when appropriate agreements have been concluded between the States concerned, when such satellite broadcasting service is based on the provisions of the International Telecommunications Union (ITU), and when the broadcasting State without delay notifies the receiving State of its intention to establish such a broadcasting service. These principles should form a primary part of the draft paragraphs on consultation and agreements between States. The inclusion of such provisions could make it pointless to continue the consideration of the draft texts on programme content and unlawful/inadmissible broadcasts.

My delegation states with regret that because of the destructive approach of some delegations at the seventeenth session of the Legal Sub-Committee, no substantial progress could be achieved in this field.

My second remark concerns the problem relating to the geostationary orbit. That orbit is of particular importance for the scientific exploration, exploitation and utilization of outer space. It is of great value, in terms of the improvement of satellite communication, the exploration of natural resources, security in air traffic and navigation, the testing of systems, and astronomical research, to mention just a few of the major fields of application.

My delegation believes that it is necessary to eliminate obstacles impeding the achievement of these long-range goals and to make the strongest efforts to prevent new impediments being established.

The tendency to put these outer space activities under national jurisdiction amounts to a denial of the freedom to carry out the peaceful exploration and exploitation of outer space and represents an impediment to the development of peaceful international co-operation.

(Mr. Maenigg, German Democratic Republic)

My delegation therefore is in favour of keeping open all possibilities regarding the application of the geostationary orbit, in line with the provisions of the Outer Space Treaty, and their practical application, as expressed in the study prepared by the Secretariat in document A/AC.105/203.

Mr. KOLOSSOV (Union of Soviet Socialist Republics) (interpretation from Russian): We should like to set forth a few considerations on different sections of the reports of the Legal Sub-Committee and the Scientific and Technical Sub-Committee. My delegation has already stated in the general debate that, in our opinion, this Committee can take note of both reports. My delegation regrets the fact that we could not make more significant progress in drafting the principles on direct television broadcasting than we did at the last session of the Sub-Committee. None the less, we do believe that even the very small steps taken towards completion of that work should be acknowledged by us as positive and we appeal to all delegations to continue to bend every effort to produce draft principles for direct television broadcasting at the next session of the Legal Sub-Committee.

It seems to us that our Committee should appeal to the Legal Sub-Committee to do so. In my delegation's opinion, it might have been possible to attempt to seek a compromise, and to do so on the basis of the working document which was introduced way back in 1976 in the Legal Sub-Committee. Sometimes it is useful to come back to already forgotten sets of ideas and documents. I refer here to document A/AC.105/C.2/L.108, of 26 May 1976, submitted at that time by the delegation of Mexico.

With respect to the principles concerning the remote sensing of the earth we feel we should point out the success achieved by the Legal Sub-Committee in drafting 17 principles for remote sensing. Although some of those are partially in square brackets and others are completely in square brackets, still the fact speaks for itself that the texts of 17 of those principles have been formulated, and on that basis we can continue the work.

(Mr. Kolossov, USSR)

No doubt, that accomplishment is something for which the Legal Sub-Committee deserves praise. However, in this case our delegation would have liked to see more substantial progress. In this connexion, we wish, even before completion of the work on principles for the remote sensing of the earth, to stress that the Soviet Government will maintain the position that photographs of and data concerning the territory of foreign States having a spatial resolution of more than 50 metres cannot be disseminated without the agreement of the sensed State.

During the session of the Scientific and Technical Sub-Committee our delegation displayed photographs here of the territory of foreign States, but we want to inform the Committee that in all three instances - they were photographs of the Mongolian People's Republic, Morocco and Angola - our Government had received official approval for this through diplomatic channels. That is to say, we had the agreement of those three aforementioned Governments.

In turn, my delegation must state, on behalf of our Government, that the dissemination of any type of data on the territory of the Soviet Union having a spatial resolution of more than 50 metres is something which we would not consider legal.

Finally, with regard to the item on the Sub-Committee's agenda on the draft treaty relating to the moon, we were very close to the completion of that work, and my delegation feels that the working document presented by the Austrian delegation is, in principle, not a bad basis for a compromise solution of this question. But, like a number of other delegations, we too think that this text does need further study by our competent bodies.

(Mr. Kolossov, USSR)

In our respective organizations in particular doubts do arise with regard to the inclusion in the text of the draft treaty of wording that proclaims the moon and its natural resources as the common heritage of mankind, and especially with regard to the close link which, according to this text, exists between the proclamation of this principle and the need to create a special international régime. I say that that is very doubtful. It seems to me that at this experimental stage in the conquest and exploration of the moon, when we do not have sufficient bases to affirm that indeed there are natural resources there, resources that might be used on earth, and when we do not have sufficient well-founded technical and economic calculations indicating that the mining of such minerals and their return to earth will be economically feasible and advisable in the future. Under these conditions it is a bit early for the treaty text to reflect such provisions in such striking terms.

We do not want the Committee to draft the kind of document that would for many years to come remain just a fantastic story on a legal theme. We should not like that to happen.

With regard to the delimitation and definition of outer space, our delegation has already expressed its support for the establishment of such a delimitation. In addition, we should now like to stress that, should we agree that outer space does begin at the altitude of 100-110 kilometres above sea-level, and should we, furthermore, work out a legal régime for and the status of the space below such a boundary, our delegation would be against the creation of any type of intermediate zone. In other words, while we allow of the possibility that a final boundary between airspace and outer space might, as a result of further work and further negotiations, be situated a bit lower than 100-110 kilometres above sea-level, we feel that, in the final analysis, at either level such a boundary should be arrived at by way of treaty and should be a boundary between airspace and outer space.

Our delegation supports the creation of a panel of experts on the remote-sensing of the earth, and feels that that type of expert group composed of something like 10 or 12 people could do very useful work by drafting for our Committee recommendations on the question of co-operation in the remote sensing of the earth as well as recommendations for co-ordinating the activities of the two

(Mr. Kolossov, USSR)

international centres that have been involved in the practical application of data produced by the remote sensing of the earth.

We wish to confirm in this Committee what we stated in the Scientific and Technical Sub-Committee, namely, that the Soviet Union, the Soviet Government and our Academy of Sciences will continue to hold in the Soviet Union seminars such as that held in Baku, and we shall do so primarily to serve the interests of the developing States.

Our delegation supports the recommendation of the General Assembly on the adoption at the thirty-third session of a resolution convening a conference. We think that now, before the General Assembly has taken a decision on the holding of such a conference, it is premature to give a specific date for it. The Scientific and Technical Sub-Committee has recommended that such a conference be held no sooner than two or three years after the General Assembly adopts its decision, and we think a specific date and venue for the conference can be decided upon after the Committee on the Peaceful Uses of Outer Space starts its work as the preparatory committee for that conference. We would be prepared to agree with a decision that our Committee should work as a preparatory committee for the conference. At this stage the Outer Space Affairs Division of the United Nations might begin to help us to define that role, and it seems advisable to us as a first step to ask the Secretariat to inform all States Members of the United Nations of the considerations regarding the agenda of the conference, its organization and its goals expressed by the Scientific and Technical Sub-Committee, in order to receive a response from all interested States. After that, the Secretariat could consolidate the answers, and the Committee on the Peaceful Uses of Outer Space could on the basis of those responses proceed with practical steps to organize the convening of that conference.

It seems to us that the conference's agenda should cover a wide range of questions of a fundamental theoretical nature as well as questions of practical applications of space technology. Our delegation might support the proposals made here regarding the inclusion in the agenda of the question of international co-operation in outer space transportation systems.

The last point we want to make is that another General Assembly resolution, resolution 32/195, adopted at its last session, in its second operative

(Mr. Kolossov, USSR)

paragraph requests the Secretary-General to prepare a study on the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space. We note that many States have submitted information and that the Secretariat is preparing such a study. The third operative paragraph of that resolution recommends that this Committee should consider at this session possible measures to encourage the largest possible number of States to participate in the Treaty. For our part, we have submitted our considerations on the subject, which are contained in document A/AC.105/219 of 15 May 1978, and, when we expressed such considerations we mentioned in particular that we might think about requesting the United Nations Secretariat to ask those States that have still not acceded to the 1967 Outer Space Treaty about their intentions and their opinions and plans with regard to participation in that Treaty.

(Mr. Kolossov, USSR)

Some documents that have been presented in connexion with that resolution contain communications from some States saying that they are now studying the question of acceding to the 1967 Outer Space Treaty. It would probably be useful to know the considerations of other States that are still not parties to that Treaty.

Mr. MANDESCU (Romania) (interpretation from French): May I be permitted to add a few words on the Romanian position concerning the legal problems our Committee and its Sub-Committee are dealing with.

As can be seen from the documents before us as well as from the views expressed in the course of this meeting, since progress is continuing in the conquest of outer space, it is indispensable to have an appropriate legal framework, a body of standards and principles that will not only facilitate the solution of some foreseeable problems but will also and in particular contribute to the development of international co-operation, the only means by which we can ensure that progress in space science and technology will benefit mankind as a whole.

Under the auspices of this Committee and its Legal Sub-Committee some instruments governing space activities have been elaborated and have already come into force. Bearing in mind that this is a very new field and that therefore in legal terms it is a question of a progressive development of international law, the results obtained should be viewed favourably. At the same time we must note that for some years now the work of the Legal Sub-Committee has been slowing down, as is shown by the lack of concrete results that could be submitted for adoption by the General Assembly of the United Nations or for approval by its Member States. A careful reading of the report of that Sub-Committee, and in particular the report on the work of the seventeenth session, indicates that there are certain problems that have been on its agenda for seven or even 10 years and that, despite that fact, the Sub-Committee sometimes wonders whether the elaboration of draft principles or rules on some subjects can be carried out successfully and whether it is in fact impossible to make more progress.

While we do not ignore the complexity of these various topics, we do not feel that it is normal for so much time to be spent on the elaboration of legal

(Mr. Mandescu, Romania)

principles and standards which in the final analysis are not really out of the ordinary when compared with similar rules and principles adopted in the past or in the process of being adopted in other fields. Let us consider the draft treaty on the moon and other celestial bodies as an example.

What the Committee is trying to do in that draft treaty is to transform into a more detailed legal rule a generally recognized principle - namely, that the moon and other celestial bodies constitute the common heritage of mankind. But in several places this report states that there are still many unresolved aspects, such as that of the natural resources of the moon, that touch on the very substance of the notion of the common heritage of mankind. This is true also with regard to the use by States of earth satellites for direct television broadcasting, references to certain fundamental principles of which, such as respect for human rights, non-interference in the internal affairs of other countries and the appreciation of activities in this field in the light of peace and friendship among peoples, are still in square brackets. It is difficult to understand the opposition to some of these draft rules - for instance, those on consultation and agreements between States. Programme content and unlawful/inadmissible broadcasts - which are implied in the principle of respect for the sovereignty of each State. A similar situation still exists with regard to remote sensing, where the formulation of such principles as those of sovereignty over natural resources and logical rules such as prior consent and access to data and information obtained is still to be found in brackets.

As regards the dissemination of information, it remains our belief that the best solution is to permit access to all data and information that are of interest. This position of principle was restated at the time of the signing of the Moscow Convention, the text of which has just been circulated as a document of the thirty-third session of the General Assembly under item 51 of the agenda. In this connexion we entered a reservation with regard to the dissemination of data to the effect that the criterion of a resolution of better than 50 metres applies only to data received from States parties to the Convention.

In order to get out of the impasse, so to speak, in which our Committee and Legal Sub-Committee seem to find themselves, it seems to us that the

(Mr. Mandescu, Romania)

Sub-Committee should receive from the Committee and, if need be, from the United Nations General Assembly more specific indications as to the fundamental elements on which to base its work. At the risk of repetition, this would still imply a revision in the manner in which matters are presented to the General Assembly through the report of the Committee and its Sub-Committees. It does seem to me that it is not enough to write in the report the results of the work done in the Working Group. This work is directed not only to the members of the Committee but to the international community as a whole and should contain political conclusions and, if possible, guidelines to be followed, so that the Members of the United Nations may easily learn about the present stage of the work of the Committee and influence the Committee by a clear and precise formulation of the desires of the majority of the Members of the international community. For the work of this Committee is not a goal in itself; it has received a mandate to prepare proposals for all Member States.

As has been emphasized by France, perhaps we should consider certain changes in the procedure used in the Committee and in its Sub-Committees. But first and foremost we believe that the members of the Committee must spare no effort in a spirit of constructive compromise to find solutions that accord with the fundamental principles of relations among States and are acceptable to all.

Finally, we are of the view that we must take advantage of the fact that the Committee now has 10 additional members and perhaps other highly interested States will join the membership. Concrete measures must be taken and recommendations addressed to States and to specialized agencies for the development of international co-operation in all its aspects. Such action will be useful also in appropriate preparation for the forthcoming international conference, in the context of which we must proceed to evaluate the results gained so far and to set new objectives.

Mr. PAL (India): My delegation would like to pick out a few of the points from the reports of the Scientific and Technical Sub-Committee and the Legal Sub-Committee that are related to some of the discussion that has gone on here.

(Mr. Pal, India)

As I mentioned in my opening statement, we seemed to be very close to formulating principles on the question of direct television broadcasting by satellite a year and a half ago. At the Committee's session in Vienna, we started by removing a large number of square brackets, and we went along fine until suddenly many square brackets started appearing again. One wonders whether one can go on discussing the draft as it stands at the moment or whether one needs another fresh approach of the kind initiated by the delegations of Canada and Sweden earlier, because we are up against some basic differences here.

My delegation and some others, many of which have spoken today, are of the view that direct television broadcasting should not take place without the consent of the country concerned - without going into legal language - and given the initiative of Sweden and Canada, the great deal of work that has been done and the discussions in the Legal Sub-Committee and this Committee, this principle of consultation and agreement between States seems to be a way to handle this problem.

In general, my delegation cannot commit itself, but it appears that if we could really get this principle adopted perhaps there might be a way to make the draft simpler by dropping some of the other things which could be implied in this principle. I do not know how many delegations would agree to this, but it might be possible.

In this regard, a worry many delegations have and have voiced as very basic is not a question of words alone, and this, of course, stems from the fact that there just is not equal opportunity or equal power in the hands of all States to broadcast to all other States. There will not be in the foreseeable future, and even if there were one wonders whether it would be wise to clutter up our space with so much electromagnetic radiation.

So one wonders how to proceed on this. I think one will have to go to some basics here and say why one wants to do this and why one wants to do that before we really take it up legally again. A discussion has taken place; we have talked about a spirit of compromise. But on some of these items such compromise is not possible even for heads of delegations here, because of the basic stances various countries have taken. On the other hand, this problem is imminent and important because direct television broadcasts are going to take place soon. And I believe we all have a responsibility to start campaigns in our own countries to project the other person's point of view and to see how we can come closer to it, because

(Mr. Pal, India)

without the support of our Governments and our peoples, parliamentarians and policy makers, it will, it appears, be difficult to come to an agreement here. Very categorical statements have been made by some delegations in this regard.

Similarly, with regard to remote sensing, talking as an individual as well as representative of my country, I find it just inconceivable that there is no resolution limit below which any country here would have reservations about the dissemination of data, because you can have resolutions of the order of a metre, and in theory it might be said that you could have them in the order of centimetres. I am sure it would be impossible for any country to say that everything right down to the finest possible resolution should be freely disseminated. If we do not come up against national sovereignty, we almost come up against personal privacy. On the other hand, there is just no doubt that, if you look at the earth from the moon, from far away, or if you make meteorological observations, these data belong to all mankind and there just cannot be any objection to their free dissemination.

So, in basics, the Soviet proposal is based on a very fine understanding of this general aspect. But what should the limit be? The Soviet Union has proposed a resolution of 50 metres, and at one of the meetings of the Scientific and Technical Sub-Committee a technical argument was given as to why it should be 50 metres. It is not yet quite clear to all of us that 50 metres ought to be the limit. Why not 70, or 100, or half a kilometre, or 30 metres? That is why the Scientific and Technical Sub-Committee addressed itself to the problem and requested a study. But let us find out what degrees of resolution correspond to what uses.

Clearly, some representatives are objecting to the free dissemination of all data because they are worried that some of the strategic elements that are part of one's private information would also be disclosed. It should not be impossible to produce some specimens showing what you can see with what resolution in what lands. And once we have that information we can approach this problem in a logical manner, our Governments can be persuaded to look at it afresh, and I am sure we can find an agreed, and agreeable principle in this regard. My delegation believes

(Mr. Pal, India)

that to be the best way to determine this limit and that that is how we should proceed. There cannot be any absolutes, either "no dissemination" or "free dissemination"; it is a quantitative decision that has to be taken. And it must be based on education, on real information as to what corresponds to what.

At this meeting a very interesting suggestion has been made on a topic that has been discussed in this Committee several times, regarding the delimitation of outer space. The Soviet Union has suggested that space above 100-110 kilometres might be declared outer space.

(Mr. Pal, India)

I recall that there was a study by COSPAR and that last year, at the Committee's session at Vienna, the President of COSPAR stated that one might define the space at about 100-110 kilometres or above as "outer space". But that must also be based on some considerations - and I would guess that that limit has been chosen because above that one can have free-flying satellites that are not powered. In principle, my delegation would have no hesitation in accepting that.

However, the other interesting suggestion made was that, even if we accepted that definition, that would not necessarily mean that all space below that was "air space". I am sure that there are very valid considerations involved in that suggestion; it is a very valuable one. But I would request through you, Mr. Chairman, that the Soviet delegation - either here or in the Scientific and Technical Sub-Committee or in the Legal Sub-Committee - for the education of us all, try to explain some of the considerations that went into that; because, unless the argumentation behind the proposal is clear there is the danger of needless worry and suspicion about why it was made. I can guess why it has been proposed, and I can almost agree with it.

Those remarks have been made here because in this Committee, where we consider as one of our activities the dissemination of knowledge, information and data about the science related to space, about remote sensing and about various other aspects, if that sort of scientific logic and the reasons behind a proposal are given then it is possible that we will not run into adversary situations as often as we happen to do. That is not meant at all as a criticism, but as an humble suggestion.

There has been discussion about the international centres for remote sensing. We are very happy that the two international centres have started functioning and are doing excellent work. We have also stated many times in this Committee and in the Sub-Committees that a lot of this effort is in aid of developing countries - as it ought to be. There have been discussions in the Sub-Committees to the effect that if other international centres are to be set up they should be in developing countries. I should like to urge that we give thought to setting up a centre for remote sensing in one of the developing countries. There is nothing like training with real problems and real situations, and such a centre would play a very important role.

With regard to the outer space conference, my delegation will deal with that point when we discuss the relevant agenda item.

Mr. EL RABAA (Sudan): Since this is my first time here, I should like to express my gratitude and deep appreciation to the Chairman and other members of this Committee for what they are doing. A committee like this will indeed be able to see the whole earth as if looking at it from outer space.

I should also like to congratulate Poland and Czechoslovakia on their entry into outer space.

Sudan, as one of the developing countries which has been making use of outer space technology for a while, indeed since 1971, and as a member of INTELSAT for a few years with ground-receiving stations and by the end of this year will have built 14 more, hopes to raise its capability in understanding many of our natural resources and to work for better communication and mass media. However we always feel, like the rest of the developing countries, that there will still be a need for improvement in our communications software.

With regard to remote sensing, Sudan actually made use of NASA's offer in 1971 of supplying LANDSAT. Through the United Nations and its various agencies and through collateral agreements among various countries, since that date we have worked almost continuously using remote sensing data. That has now culminated in the establishment of a new remote sensing centre in Sudan, with the help of the United Nations Development Programme (UNDP) projects.

We should like to express our view on restriction of the dissemination of remote sensing data. It appears quite difficult, so far, to find a criterion - with the possible exception of the resolution. However, one hopes that care will be taken not to lose the advantages offered by analyses of earth's features on continental and global scales - a matter that is becoming increasingly more significant in our day. I may recall the example of studying desertification problems.

I feel that not sufficient emphasis has been placed here on international co-operation in the use of remote sensing in disaster monitoring and the assessment of both sudden and creeping disasters. I think there is much room for that in international co-operation.

(Mr. El Rabaa, Sudan)

With reference to the direct television broadcasting system, we feel that it is not difficult to work out a programme to enable one to make use of such international progress.

We feel that the Austrian proposal for a moon treaty can provide a sound basis for a very comprehensive agreement.

Mr. KOLOSSOV (Union of Soviet Socialist Republics) (interpretation from Russian): If we have understood correctly what has been said, the representative of India, Mr. Pal, asked us a question, through you, Sir - namely, why at this stage does our delegation agree to consider the area above the altitude of 110 kilometres to be outer space, but is not prepared to say that at the same time this same boundary of 100-110 kilometres is the upper limit of air space?

By way of answer we can say at once that this is a question not only of international co-operation in outer space, not only of international space law, but also one of international air law. Furthermore, if we agreed to start with that 100-110 kilometre boundary, which would mark the beginning of the régime for outer space flights, that is to say, the régime of international outer space law, then our body, which is competent to put forward any considerations it wishes on this question, would probably not find it so easy to express considerations with respect to air space, and in particular with respect to the upper limit of air space. The upper limit of air space is of interest: it is of interest to specialists in civil air law, it is of interest to the International Civil Aviation Organization (ICAO), and it can be of significant interest to those international organizations which deal with the protection of the environment. So we say that the altitude of 100 to 110 kilometres can already, on the basis of existing circumstances, be acknowledged as outer space. So far there have been no protests with regard to satellites; and indeed at that height space objects can be returned even if they have some kind of motor attached to them. That is the first step.

Now, with regard to a definitive treaty solution to this problem of the limit of outer space, this clearly requires further study, which should be carried out by our Committee in close co-operation with other interested international organizations - that is, organizations which discuss the question of air law and environmental protection, and a number of other questions, only in the light of those organizations and only in the light of the stakes which States may have in that area. That is the only way we can come to a conclusion that indeed at an altitude of 100-110 kilometres air space ends or the sovereignty of States ends if we are talking about that part of air space which is above the territory of any given State.

(Mr. Kolossov, USSR)

Furthermore, we have said that such a conditional limit of outer space could be considered only if we simultaneously acknowledged the right to send space objects through the air space of other States for the purpose of putting them into orbit and for the purpose of returning them to earth. This may be of special interest to States which are small in territory - that is, territories which may be surrounded on all sides by other sovereign territories - since for them it would be difficult to launch space objects into orbit without their going through the air space of neighbouring States.

These questions also need to be studied by technical specialists in that area so that they may be resolved objectively and to the satisfaction of all parties. These questions cannot fail to touch upon the upper limit of air space as it affects the sovereignty of States.

Mr. BENTIVOGLIO (Italy): We have listened with great attention to what the representative of the USSR has just said and we should like to ask him for some clarification on two basic points.

We understand that he can agree to a conventionally-based upper limit of outer space in the sense of establishing a borderline between outer space and air space, and we agree that this can be done. Everything can be done by law since the law is in itself an artificial body. My question deals with the argument we have just heard that the question of the regulation of air space should be dealt with by other international institutions, such as, for instance, the International Civil Aviation Organization (ICAO).

Now, we are all aware of the existence of the Chicago Convention which, in article 1, establishes what is meant by the national sovereign territory of each sovereign State, including its territorial waters. The immediate result of establishing a borderline between air space and outer space should be that air space goes as far as the borderline, therefore the portion of space which is below outer space comes entirely under article 1 of the existing Convention, to which there are 139, I think it is, contracting parties, including the USSR. So it is not a matter of consultation, but a matter of amending the Convention, which would be very difficult, would require a lengthy and thorough process of debate and would touch also on some other subjects.

(Mr. Bentivoglio, Italy)

We are prepared to accept this conclusion, but we want to go further and to see what the implications are for, in the opinion of this delegation, there can be little doubt that, if we establish a limit between air space and outer space, outer space will fall within the province of this proposed treaty, but air space will automatically come under the régime of the Chicago Convention alone. That is my first point.

(Mr. Bentivoglio, Italy)

My second point is this, and it is very interesting. We are all aware of the fact that when space objects are launched, in their ascending flights they follow a parabolic line - that is to say, they cross the air space of many other States. This is the practice and no objection has been made to these flights. In other words, we can admit that at present it is a principle of international law that there is freedom to launch space objects or space vehicles through air space. Now, the representative of the USSR says that in establishing this borderline we must also, of course, establish in this proposed international convention that there is freedom for space objects to pass through the remaining air space.

Again, I think, a conflict arises with article 1 of the Chicago Convention because, technically, one treaty cannot modify another. In other words, even if we adopt such a rule in a new convention this will not imply derogation of article 1 of the Chicago Convention unless all parties to the latter agree to that derogation.

I hope I have made my points clear.

Mr. KOLOSSOV (Union of Soviet Socialist Republics) (interpretation from Russian): It is precisely because of these particular points which have justly been raised by the Italian delegation that I think that all these questions should be the subject of further study and negotiations, and clearly this should be done both within the Legal Sub-Committee and the Scientific and Technical Sub-Committee and jointly with other international bodies concerned.

The CHAIRMAN: Can we conclude, therefore, that we have exhausted this debate and consideration of these two items, allowing us to move forward to the next item on the agenda? Since that seems to be agreed, we have concluded consideration of agenda items 4 and 5.

QUESTION OF CONVENING A UNITED NATIONS CONFERENCE ON OUTER SPACE

The CHAIRMAN: Our discussion on this item should focus on the relevant paragraphs in the report of the Scientific and Technical Sub-Committee.

Mr. PAL (India): As representatives are aware, a great deal of time was spent by the Scientific and Technical Sub-Committee and the Working Party discussing this question. It appears from the views that have been expressed by a large number of representatives here that there is a general consensus that a conference should be held. I should like to suggest that in order to formulate possible recommendations by this Committee and discuss some of the points in detail it might be useful to have an informal working group of the whole Committee which could go into this question on Monday morning and make a draft of the appropriate paragraphs which might be included in the report of this Committee and which could then be discussed by the Committee at a formal meeting.

I should like to propose further that, if it is agreed that such an informal working group should go into this question, the representative of Australia might be requested, or persuaded, to be the Chairman of that group. Australia took quite an active part in the discussions in the Scientific and Technical Sub-Committee, and indeed chaired some of the meetings of the drafting group, so it is appropriate that the representative of Australia should be the Chairman. In this way we can probably finish our work without too much haste.

The CHAIRMAN: The Committee has heard the proposal made by the representative of India that we might set up an informal working group under the chairmanship of the representative of Australia to discuss the question of the proposed conference and formulate proposals which we could then adopt and put in our report. Are there any comments?

Mr. KOLOSSOV (Union of Soviet Socialist Republics) (interpretation from Russian): My delegation supports this proposal and thinks that such a working group should have as part of its mandate the formulation of the relevant paragraphs in the report of our Committee. We hope that it will prepare a draft resolution

(Mr. Kolossov, USSR)

for the General Assembly and also draft an appropriate paragraph which we can submit to the General Assembly for adoption.

The CHAIRMAN: If no other representative wishes to speak, may I consider that the proposal of the representative of India is adopted and that we can ask the representative of Australia to take the Chair at the informal meeting?
It was so decided.

Mr. GREET (Australia): I intervene only to say that the Australian delegation will be glad to co-operate as proposed by the Indian delegation and we look forward to getting together with delegations on Monday.

The meeting rose at 5 p.m.