COMMITTEE ON THE PEACEFUL USES OF OUTER SPACE

VERRATIM RECORD OF THE ONE HUNDRED AND FIFTY-NINTH MEETING

Held at Headquarters, New York,
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Chairman: Mr. JANKOMITSCH (Austria)

- Statement by the Chairman
- General debate (continued)

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STANDARD BY THE CHAIRMAN

The CHAIRMAN: This morning at the beginning of our meeting it is with particular pleasure and privilege to welcome here on a brief visit Piotr I. Klimuk and Vitaly L. Sevastyanov, two distinguished members of the cosmonauts of the Soviet Union.

This second Soviet crew of the Salyut-6 space craft spent, as we all recall with admiration, 63 days in earth orbit last year. That scientific feat deserves our congratulations, which I am delighted to extend to our two friends here this morning on behalf of the Committee.

On board their orbital station, Piotr I. Klimuk and Vitaly L. Sevastyanov carried out the complex programme of studies of the earth and its atmosphere, of the sun and other celestial bodies and conducted a series of medical and biological experiments.

Again, I wish to extend a most cordial welcome to our two visitors from outer space.

I understand that Mr. Sevastyanov has a short message for the Committee, now call on him.

Mr. SEVASTYANOY (interpretation from Russian): Mr. Chairman, we accepted with great pleasure your invitation to participate in this meeting of the United Nations Committee on the Peaceful Uses of Outer Space. This extremely important body of the United Nations has already made a great contribution to the cause of organising broad international co-operation in the field of outer space. The member States of the Committee in a short period of time have worked out a whole series of treaties which have laid the foundation for international space law. This new branch of law contributes to establishing order and to ensuring that space technology is used in the interests of mankind.

Astronautics is serving more and more practical earthly goals. Scientists and cosmonauts are performing useful feats before our very eyes. Artificial earth satellites and space-ships are becoming not only marvelous instruments for the collection of fundamental scientific data but also an excellent means for carrying out applied work in space in the interests of geology, meteorology and communications, as well as for studying the world's oceans.

The solution of two earth problems -- the first, the study of earth resources, and the second, control over the environment, both planetary problems in essence -- is possible not only when we make use of what is available on earth and in outer space and when there is international co-operation and joint efforts by all countries on earth. The solution of these problems concerns the future of our planet and of mankind. Much effort still needs to be made and much research to be done. There are many difficulties to be overcome, but any difficulties can always be overcome. States working together in a spirit of co-operation and friendship will always achieve successful results.

The prospects for the use of outer space for the benefit of mankind are attractive in every way and they capture our imagination. Cosmonauts in the Soviet Union, through their activities in preparing space programmes and while executing manned space flights, have always obeyed the principle of service to scientific research, to the peoples of the earth and to peace.

We, the representatives of the Soviet cosmonaut corps, express the hope that this Committee will in future continue to make important and significant contributions to the noble purpose of using outer space for the good of all men on earth. Allow us to express our wishes for the Committee's success in that direction.

The CHAIRMAN: Thank you, Cosmonaut Vitaly Sevastyanov, for your message and your kind wishes. May I, on behalf of the Committee, wish you much success in your further efforts in the peaceful exploration of outer space in the interests of mankind as a whole.
Mr. Krueger (German Democratic Republic): First of all, I should like to congratulate the delegation of the USSR on the launching of a new space station into earth orbit by the Soviet Union. The space station, Salyut-5, is a further step by the Soviet Union in the peaceful exploration of outer space.

It is a great pleasure for me, on behalf of my delegation, to welcome you again, Sir, as Chairman of the Committee on the Peaceful Uses of Outer Space. During many years' activities as Chairman of this Committee you can look back on a number of positive results of the Committee's work, to which you personally have made a significant contribution.

In this connexion, we should also like to thank the Chairman of the Scientific and Technical Sub-Committee and the Legal Sub-Committee who successfully guided the activities of those bodies in Geneva this year.

We should also like to express our thanks to the staff members of the Secretariat, in particular to the Director of the Outer Space Affairs Division, Mr. Perek, and to the Expert on Space Applications, Mr. Murthy, for the work they have carried out since the eighteenth session.

The German Democratic Republic continued to carry on its space research activities in the years 1975 and 1976 within the scope of the Intercosmos programme of the socialist countries. Those activities covered the following subject fields: space physics, space meteorology, space communications, space biology and medicine, and remote sensing of the earth by aerospace means.

The experiment to register the Faraday effect of the ionosphere by means of signals of the geostationary AVOS-5 satellite, jointly carried out by the Academy of Sciences of the German Democratic Republic and the Academy of Sciences of the Republic of Cuba, the improvement of the work of the Intersputnik ground radio station of the German Democratic Republic, the first section of which was put into operation for the international exchange of news and information, and the collaboration of the German Democratic Republic in the Working Group on "remote sensing of the earth by aerospace means", set up by the socialist countries in April 1975, have to be underlined here.

With regard to the work of the Working Group just referred to, the German Democratic Republic takes part in the provision of basic technical devices as well as in the interpretation of the data obtained. In this connexion, the recording and monitoring of factors affecting the environment are of special importance for us. The report of the German Democratic Republic, dated 11 March 1976 and transmitted to the Secretary-General, supplies more information about further activities.

Representatives of the German Democratic Republic participated in the work of the Sub-Committees in Geneva and explained our position on specific problems; I should therefore like to speak on some questions only.

The Scientific and Technical Sub-Committee drew special attention to the question of remote sensing of the earth. Now, as before, the delegation of the German Democratic Republic starts from the idea that this important and universally profitable technology should largely be co-ordinated with regard to its application for peaceful purposes within the framework of the United Nations.

The studies elaborated in this connexion by the United Nations Secretariat serve as a useful basis for the continuation of the work, particularly within the Sub-Committees. However, we should like to stress that in this field of remote sensing of the earth, the elaboration of legal provisions must go hand in hand with technological solutions.

The working paper presented by the USSR at the session of the Scientific and Technical Sub-Committee in Geneva on the subdivision of data collected by remote sensing of the earth into so-called "local" and "global" data is of great help for the elaboration of legal provisions and facilitates the achievement of consensus.

Appreciation for the programme carried out by the Expert on Space Applications has already been expressed in Geneva, and we should like to stress once more that we extend our thanks to the experts for the results achieved in carrying out the programme within the framework of the financial limits set by the United Nations General Assembly. Those results prove that, by rational use of resources, by good co-ordination and thorough preparation of measures, an
important contribution can be rendered to the further propagation of knowledge about the usefulness of the application of space technology in different fields.

In our opinion, these facts are important especially for those countries which are going to deal with the utilization of new technology for their specific purposes.

Concerning the elaboration of legal norms for direct television broadcasting by satellites, the delegation of the German Democratic Republic would again like to give further emphasis to the formerly expressed opinion that the principle of maintenance of and respect for the sovereignty of States is of decisive importance, as confirmed by the Final Act of Helsinki.

A lot of demagogy about the so-called free flow of information is being carried on also by means of direct television broadcasting. I believe that there is enough historical experience which proves the misuse of information media, and that it is not necessary here to go into further detail.

Without doubt, there is nobody who holds that after such experience in the past one should countenance aspirations which do not serve international understanding, but are directed against it.

That is why we believe that direct television broadcasting by satellites can only be a valuable means for increasing understanding among peoples and for developing relations of good neighbourliness among sovereign States if it is done on the basis of generally recognized principles of international law: for instance, the principles of sovereignty of States and of non-interference in the internal affairs of States.

If these principles are taken into account, the German Democratic Republic will always support and promote an exchange of information and culture.

The nine principles on the operation of direct television broadcasting, formulated as drafts at the past session of the Legal Sub-Committee, are supported by my delegation.

With regard to the completion of the draft treaty relating to the Moon, we hold that the Legal Committee during its last session, notwithstanding the progress achieved, has still to solve a number of important basic issues, such as the scope of this treaty, the legal status of the Moon and of its resources, as well as information about Moon expeditions. In our view, these questions should be regarded as a "package".

All States should have the right to explore and use the Moon and to utilize its resources. We hold that the Moon should be used exclusively for peaceful purposes.

I have a remark to make on the convening of a United Nations conference on outer space: The deliberations in the Scientific and Technical Sub-Committee in Geneva again have shown that even the members of this Committee do not have clear ideas. As previous outer space conferences show, comprehensive and thorough preparation is necessary in each case. Therefore, it seems to be necessary to give States some more time to deal with these problems. A premature decision about the holding of such a conference does not guarantee that results can be achieved which would be beyond the capacity of existing outer space organs.
Finally, allow me to express the satisfaction of the delegation of the German Democratic Republic with the progress recently achieved during the session of the Sub-Committees in the elaboration of important principles on the peaceful uses of outer space.

The reports of the Scientific and Technical Sub-Committee and of the Legal Sub-Committee to the nineteenth session of the Committee on the Peaceful Uses of Outer Space have the approval of the delegation of the German Democratic Republic.

One more short remark: Yesterday, a speaker here mentioned German-American and German-French projects within the framework of the peaceful exploration of outer space. In this connection, I should like only to make the clarifying remark that these projects are not activities of the German Democratic Republic, and I would ask that in future formulations be used which would prevent misunderstandings.
Generally speaking, my delegation does not need much time in order to set forth Belgium's space activities, especially since they are summarized at length in the annual communication sent to the Secretariat for this purpose, and while all United Nations Members can refer to it. What is more, these activities, although very real and extensive, fall largely within the context of international co-operation. As indicated in document A/AC.105/167/Add.1, Belgium is a member of the European Space Agency and thus participates in the basic programmes and in the scientific programmes of that organization.

I also wish to mention at this point that Belgium has taken practical measures by granting scholarships for the training of experts from the developing countries in remote sensing, as we announced last year. Moreover, my country plans to increase from two to four the number of such scholarships, which are now available for study in Belgium until a more specialized centre is established in Italy under United Nations auspices.

If my remarks were to remain completely general, I could stop here; but I do not believe that in so doing I would truly have contributed to advancing our work. Hence I feel obliged to touch on the points to be dealt with in greater detail in our debates to come. I wish to indicate here our general position on them. I am speaking, of course, of the two reports before us submitted by the two Sub-Committees.

The Belgian delegation is pleased to note that constant, although slow, progress has been made towards completing the tasks assigned to those two Sub-Committees. We hope that the debates of this session will contribute to a better understanding of the views of delegations present here, and thus allow us to reach a more general understanding.

Progress can be best measured by comparing last year's reports with those of this year. As I have just said, progress is very real, yet very slow; so it is important to make sustained and constant efforts, which would certainly not be
Belgium wishes to reiterate its complete willingness to reach a balanced compromise among the present positions in order to eliminate the main obstacles to the final preparation of the draft treaty.

With regard to the principles governing the use of direct television satellites, the Belgian delegation is happy that nine principles have been formulated and adopted. None the less, a problem remains, and this is the key problem in this matter, namely, that of consent and of participation; it still has not been the subject of an agreement. The Belgian delegation is of the opinion that the technical conference of the International Telecommunications Union on the planning of frequencies to be held in January 1977 will make it possible to reduce considerably the scope of the legal problems raised by direct broadcast television.

Having said this, I wish to emphasize here once again the overriding principle of the free circulation of information.

The problems of remote sensing of the earth by satellite have been the subject of debates, both in the Legal Sub-Committee and in the Scientific and Technical Sub-Committee. Indeed, several of these problems appear to have been referred from one Committee to another, and this situation has given rise to various suggestions which would lead to an over-all joint study of all problems connected with remote sensing. For its part, Belgium does not think that it is necessary to establish a special working group on remote sensing. On the other hand, it believes that it would be useful, even indispensable, for the Committee to exercise its mandate fully and to envisage the whole gamut of problems of the remote sensing of the earth, assisted by the two Sub-Committees and, possibly, assisted by a panel of experts appointed by the Scientific and Technical Sub-Committee which would be made up of representatives of States, international bodies and centres as well as users. As regards this last aspect, Belgium also believes that account must in particular be taken of the needs of the developing countries, and it also finds that the Director of the Outer Space Affairs Division should be a member of such a panel if it were to be established.

Another topic on which scientific and technical data can assist us to come up with a legal formulation is the problem of delimiting outer space. I feel that it would be useful to put this item on the agenda of the Committee and to give it priority when the Committee has settled one of the items which, at the present time, is of a priority nature. Indeed, I note that many delegations have reacted favourably to the document submitted by the Belgian delegation to the Scientific and Technical Sub-Committee. The idea which the Belgian delegation set forth in that Sub-Committee, namely, that the lower limit of outer space should be fixed at 1003 kilometres, seems to have been supported by COSPAR in the statement which its representative made on 21 June. I do not doubt that other delegations can also approve it.

Here I should like to remind the Committee of the continuous support given by Belgium to the United Nations programme on space applications. We continue to ask for the granting of an adequate and realistic budget for this extremely useful programme.

As regards the prospects of a United Nations conference on space technology, we have constantly expressed our support for the principle of such a conference. However, we are somewhat disturbed by the lack of reaction on the part of the majority of the States Members of the United Nations with regard to this Conference. The Canadian delegation has also pointed out that we do not have detailed information with regard to the scope and the objectives of this conference. The Belgian delegation wonders whether we should not entrust to an ad hoc group, made up, perhaps, of the most actively interested delegations, the specific task of eliciting the interest of United Nations Members in this initiative by more specific means than the simple repetition of earlier appeals and through replies to a questionnaire. That group could also undertake a study of all the various points of view and means proposed for organizing a conference on space technology.

Finally, in turning to the need to co-ordinate the activities of the Legal Sub-Committee with those of the Scientific and Technical Sub-Committee, I have already indicated in the context of the remote sensing of the earth by satellite that this co-ordination must remain the responsibility of the Committee, which should attempt to give specific and clear guidelines to the two Sub-Committees by insisting on an effective co-operation as possible between them.
MR. RYDBROCK (Sweden): As has been underlined in previous statements, both yesterday and today, the year that has elapsed since we last met in this Committee has been marked by several important events in the field of space activities, for example, the Joint United States-Soviet Apollo-Soyuz mission and the Satellite Instructional Television Experiment, broadcasting programmes to 5,000 Indian villages. Yesterday, we heard the Canadian representative tell us about the most interesting Communications Technology Satellite (CTS). The experimental CTS project is the first communications satellite to use the frequency band envisaged for the future direct television broadcast satellites. The possibilities outlined by the Canadian representative on using space technology in the medical and other social fields we found to be of particular interest. There are, as we know, many other space projects of interest to this Committee, projects that have already been carried out or for which plans were laid during the last year. They have been undertaken, both by individual countries and bilaterally and regionally. Among the regional projects we note in particular the activities of the European Space Agency.

Sweden has just completed the procedures for becoming a Party to the United Nations Conventions on International Liability for Damage Caused by Space Objects and on Registration of Objects Launched into Outer Space. In regard to the former, we have also made a declaration whereby we accept being bound by appropriate rulings on liability in relation to such other States Parties to the Convention as have done the same. We hope that the number of such declarations will increase. The parliamentary procedures making possible these important steps were carried out simultaneously for the two Conventions since the Swedish Government considers that there exists a strong organic link between them. Because there is this link, it is the hope of my Government that the registration Convention will soon enter into force and that it will have wide adherence. We were therefore pleased to learn yesterday that the United States is about to ratify the Convention.

The Scientific and Technical Sub-Committee and the Legal Sub-Committee met in Geneva during the spring. They have both achieved positive and valuable results. In this context, Mr. Chairman, I should like to express, through your delegation's sincere appreciation and gratitude for the very able chairman that was exercised in the Scientific and Technical Sub-Committee by...
Remote sensing is at present the only major item on the agenda of this Committee that has required equal attention in both Sub-Committees of the United Nations Committee on the Peaceful Uses of Outer Space. The reports of both Sub-Committees register interesting achievements.

The report of the Scientific and Technical Sub-Committee gives an account of both on-going activities and possible future developments. We hope that a better general understanding of the problems involved will be facilitated by the systematic and structured presentation that is given in that report. Such an understanding will not in itself solve the problems, but it is an indispensable step on the way to agreed solutions.

In order to identify the matters deserving most attention, it would seem useful to recall the reasons why we have the question of remote sensing on our agenda at all. In short, we see those reasons to be, first, the concern to secure the important benefits of remote sensing from those space for all, and, second, the concern to establish safeguards against possible misuse of information collected by means of remote sensing. In both respects, the data dissemination to sensing, sensed and third States is of vital importance. I shall attempt here and now, to provide detailed ideas of what in our mind should be the steps to the important substantive questions that relate to the availability of data. Interesting proposals on methods of dealing with data dissemination have been put forward in the two Sub-Committees by, among others, the Soviet Union and Canada. We are very interested in obtaining further clarifications and explanations from the respective delegations in the course of this session and during the next meetings of the Sub-Committees.

In our opinion it is of importance to emphasize that the organizational set-up for remote-sensing activity directly affects the solution of the problem of dissemination. Thus we note that also, in paragraph 63 of its report on this year's session, the Scientific and Technical Sub-Committee recognizes that different organizational alternatives for future remote-sensing activities might have different effects with regard to data dissemination.

Another important conclusion of the Sub-Committee, in paragraph 76, is that the United Nations could already play a co-ordinating role in the field of remote sensing in the current experimental stage and, even more, in the future operational phase.
to call to the attention of this Committee the unfortunate effects upon our work, in terms of efficiency if such an official separation of the various aspects of remote sensing is allowed to continue. Better co-ordination between the two Sub-Committees is necessary. It is to be sincerely hoped that agreement for some arrangements to initiate such efforts can be reached during this session. Any realistic proposal that could be acceptable to all members of this Committee will be welcomed by the Swedish delegation.

I now turn to the question of direct broadcasting satellites. We were happy to note that, after many years of sometimes quite difficult work without any clarification of the various concepts involved, the Legal Sub-Committee could last year start the actual drafting of the principles governing the use by States of artificial earth satellites for direct television broadcasting. We note with satisfaction that further progress has been made during the session of the Legal Sub-Committee this year. There are now nine agreed principles the texts of which appear without brackets or alternatives. What still remains to be done, however, is to ensure the work of the broadcasting and the receiving States. The Canadian-Swedish approach on this point is basically that prospective television broadcasters that have access to direct-broadcast-satellite technology should be subject to licensing and co-ordination procedures, just as is the case for the establishment of a domestic television broadcasting system in any of our countries. The Canadian-Swedish draft principles on international co-operation participation and consent indicate one clear way of ensuring that such procedures prevail also in the case of signals emanating from direct broadcast satellites received on individual television sets. This approach has gained increasing support, and we sincerely believe that this is the most realistic way to achieve a compromise on this sole remaining issue.

It is hoped that the World Administrative Radio Conference of the International Telecommunication Union (ITU) to be held in 1977 will reach agreement on a world plan for the direct satellite broadcasting service. That would probably facilitate the work of this Committee. It should be kept in mind, however, that ITU is dealing with the purely technical aspects of the problem and that the political and legal questions must be solved by this Committee and the General Assembly of the United Nations.

We now have a unique opportunity to establish an international order for direct broadcasting satellites before the whole world has created additional obstacles in our path. It is therefore of crucial importance that the work on the principles governing the use by States of direct broadcasting satellites should be completed in 1977. We do believe that real possibilities to achieve this exist.

Before concluding, Sir, I wish to express to you my delegation's and my own satisfaction at participating in this Committee's work under your able chairmanship and wise guidance. We know from past experience that this is one of the very best guarantees of positive results from our work.

Mr. NURCPA (Chile) (interpretation from Spanish): It is an honour for my delegation to be participating for the third year in this Committee's work. We wish to take this opportunity to reiterate that we are ready to cooperate with you, Mr. Chairman, towards the success of this nineteenth session of the Committee, which has just begun.

My delegation has taken due note of the reports submitted by the Scientific and Technical Sub-Committee and the Legal Sub-Committee on their sessions recently held in Geneva. Those reports represent a new effort to channel space activities towards the promotion of international co-operation in that respect and to establish the legal standards that have not yet been established, so that the legislation now under consideration may be completed. Both of these subsidiary bodies have carried out effective work within the time available to them, although important legal questions remain to be defined.
Despite the fact that the current space age has lasted only a few years, the scientific progress and the accomplishments have been surprising indeed. That makes it necessary for us to reflect on the responsibilities and obligations that the international community has acquired.

We believe that there should be no delay in completing a body of law on outer space to cover and regulate all activities that States may undertake in that field, in order to safeguard the rights of each and every one of those States and to ensure that the absence of legal standards does not lead to the creation of new grounds for controversy or situations likely to affect international peace and security.

The use of space, through earth satellites, for remote sensing activities, for broadcasting or for other scientific purposes has considerably increased the forms of co-operation among States in the various fields of human endeavour. At the same time, new forms have appeared that threaten the sovereignty of those States, sovereignty that must be safeguarded.

The developing countries can benefit enormously from this new technology, but they lack the economic and scientific possibilities of using such technology. It is therefore essential to understand that international co-operation is becoming increasingly useful and necessary.

For many years the conquest of outer space will remain the privilege and responsibility of the major space Powers. That cannot, however, mean that they have the right to the exclusive use of outer space. On the contrary, we believe that the natural resources of outer space must be the common heritage of mankind. A definition to that end should be drawn up as soon as possible, since that is of fundamental importance to promoting trust and stimulating international co-operation, as well as increasing a sense of responsibility for the preservation of peace.

There is no doubt that differences which exist today in regard to basic aspects of the draft treaty relating to the moon, the elaboration of principles governing the use by States of artificial earth satellites, the legal implications of remote sensing of the earth from space, and matters relating to the definition and/or delimitation of outer space and outer space activities have delayed the preparation of a complete body of law for the future regulation of all space activities. Nevertheless, it is gratifying to note that some progress has been made in terms of multilateral treaties, agreements and conventions on the activities of States in the exploration and use of outer space, on the rescue of astronauts, on the return of objects launched into outer space, and on international responsibility for damage caused by space objects.

We believe that it is indispensable to understand the great importance of the legal work to be done and of the speed with which progress must be made so that in the near future we shall not be overtaken by events.

These advances in the legal field will be a source of confidence to States and will promote international co-operation. That is of utmost importance to the use of outer space. On the other hand, delays in the establishment of a body of space law, while we await greater technological progress, may give rise to disputes instead of progress and endangering international peace and security.

The establishment of the law of the seas, now in its final stages, has been the result of many years of study and discussion that have made it possible to adopt legal standards to resolve a situation which had developed only gradually. The situation with regard to outer space is very different, technological and scientific progress has been proceeding at an astonishing pace. That makes it advisable not to postpone the regulation of these activities, which could have an enormous effect on the international community.

There are many problems on which no consensus has been reached, despite the efforts made to that end. It is somewhat discouraging to note that the dialogue is not proceeding with the speed that had been hoped for, and that there are still some important questions pending. We hope that this will at least operate in favour of a more appropriate and better solution in the future.

Several years have passed since we began the discussion of the item on the draft treaty relating to the moon, but there are still basic, although not immemorial, differences. No agreement has been reached on such important aspects as the scope of the treaty, the information to be provided on missions to the Moon and the natural resources of the Moon. For that reason, it has not been possible to prepare new texts on the questions under discussion.
Our delegation is still convinced that there are no valid reasons for not applying to the natural resources of celestial bodies, and in particular of the Moon, the same régime of "the common heritage of mankind" which has been established for the sea-bed beyond the limits of national jurisdiction. Such resources should not be the property only of those who are able to explore and exploit them; rather they should be distributed for the benefit of all mankind without discrimination whatsoever, and States should commit themselves to establishing an international régime and procedure to regulate those activities.

It would not be fair or equitable to ignore the interests and needs of developing countries, nor should we disregard the merits of the States which have pioneered Moon exploration.

The advances made in the field of direct television broadcasting by earth satellite have been considerable, resulting in the adoption of the nine principle contained in annex II of the report of the Legal Sub-Committee.

However, there was only an exchange of opinions and no positive results on such important questions as consent and participation, the content of the present and illegal inadmissible broadcasts. We consider these three aspects to be very important and if they were not to be subjected to strict regulations they could affect the sovereignty of countries and the principle of non-interference in the internal affairs of other States, thus threatening international peace and security.

In like manner, on subjects related to remote sensing of natural resources, owing to the lack of time important questions such as the prior consent of States and access to remote sensing data were not thoroughly considered. These questions fundamentally affect developing countries and, in our view, it is urgent to set up an equitable international régime to safeguard the sovereignty of the State over its natural resources and to allow free access of the sensing State on a priority basis to the data and information obtained with respect to the confidential nature of the information according to agreements reached. My delegation attaches the greatest importance to this question and trusts that the Committee will consider it and give it preferential attention.

It is regrettable that agreement has not yet been reached on the definition and/or delimitation of outer space and other space activities. We consider the study of this question to be of vital importance since the present increase in earth satellites and their widespread use could lead to controversies, especially when we take into account the fact that there are other matters related to this question that have not yet been defined.

It would not be sufficient to set up a complete system of legal norms and principles to guarantee the proper use of space. It is also essential to set up an international control system to govern its exploration and exploitation, ensuring that in its use the rights of all States are respected and the resources are equitably distributed.

In the field of international co-operation, Chile will benefit from the remote sensing of its territory from space. As recognized in the report of the Scientific and Technical Sub-Committee, the pre-operational Landsat system of the United States is the main remote sensing system from satellites in general use in many Member States. In our country with the co-operation of the United States we are building a station to receive data from this system. This will be of valuable assistance to regional planning and development.

We should also like to take this opportunity to point out the importance that we attach to the proposal to add to our agenda an item on the study of solar energy and its great potential for the benefit of mankind as a whole. We shall support any initiative taken in this regard and we already welcome the working paper submitted by the delegation of Argentina in document A/AC.105/L.91.

We consider very wise the decision taken by the Scientific and Technical Sub-Committee to establish an informal working group whose mission it would be to report on the possible convening of a United Nations space conference. We have sufficient background to decide at an early date what should be done with regard to a question which could be of such great importance for the future of space activities. The United Nations has gradually intensified its activities to promote such progress by disseminating information, promoting international co-operation, co-ordinating many remote sensing and training operations.
and directly sponsoring sounding rocket facilities. It is to be hoped that more and more fields may be covered, since this would awaken the confidence of the international community.

All Member States must by their solidarity and understanding support progress in the space age and arrive at the establishment of timely, just, far-sighted, complete and definitive legal norms in this field.

Miss Holzer (Austria): The past year has again been marked by a number of outstanding achievements in the conquest of outer space and in the application of space technology in various fields of human activity. The success of such projects as the Apollo-Soyuz mission of the United States and the Soviet Union in July 1975, the Venus probe, the Indian SIRI experiments and, most recently, the United States Viking mission to Mars, to name just a few, give ample proof not only of remarkable technological progress but also of the tremendous potential for social and economic development as well as the strengthening of international co-operation. It has always been the view of this delegation that the problems we are faced with today, such as that of the supply of food and energy and the preservation of environment, being of an essentially global nature and magnitude, demand global solutions based on international co-operation. This Committee could and should continue to search for such solutions and assist, wherever possible, in their implementation.

The world is becoming increasingly aware of the actual and potential benefits to be derived from space and space-related research and activities. In my own country public interest is growing rapidly and so is the activity of the Austrian Space Agency (ASA), which started its work in 1974. Its main objective is the encouragement and co-ordination of Austrian scientific and industrial efforts in space research, as well as the promotion of bilateral and international space programmes. One of the major achievements of the Austrian Space Agency so far has been the preparation for the future participation of Austria in the Spacelab programme. Austrian research groups are particularly interested in utilizing Spacelab in the fields of atmospheric, magnetospheric, and plasma physics, material sciences and the remote sensing of...
A summer school for the training of experts from various countries has been created in co-operation with scientific groups from other European nations. It held its first very successful meeting, dealing with the application or remote sensing to environmental and energy-related disciplines, in August 1978. Seventy students from nine countries participated.

The International Energy Agency Working Party on Small Solar Power Systems decided, at its inaugural meeting in February of this year in Paris, to entrust to a group of experts headed by Austria the definition of a project for a solar-thermal demonstration plant. That expert group met in Vienna in May of this year and drew up a proposal for a 500-kilowatt solar power plant. Such small-scale projects might be of particular significance also for developing countries, especially to guarantee electricity supply for small villages and remote areas.

I have given this brief survey of Austrian space-related activities in order to demonstrate the growing interest of my country in this subject and also our basic conviction of the usefulness and, indeed, necessity of international co-operation.

Permit me now to turn to the items on the agenda before us at our present session. My remarks can be brief since I shall address myself to the individual issues in greater detail at a later stage of our deliberations.

Turning first to the work completed by the Legal Sub-Committee, it seems obvious that considerable progress has been achieved. We have narrowed down the issues by successfully disposing of some of the minor and marginal problems, as regards both direct broadcasts by satellites and remote sensing. This will leave us with the duty and opportunity to concentrate, at the next session of the Legal Sub-Committee, on finding a solution to the crucial and most difficult questions involved, namely, how broadly speaking the international community could come to grips with the legitimate desire for maximising the utilisation and benefits of space activities such as direct broadcasts by satellites and remote sensing, on the one hand, and the fear of an infringement of national rights, values and resources, on the other hand. As regards the draft treaty relating to the Moon, a compromise on the very few outstanding differences of opinion was reached at the Sub-Committee's last meeting. Although finally an agreement was reached, it is the firm belief of my delegation that a solution is possible and in the very near future, provided all interested delegations take a realistic and flexible position.

The Scientific and Technical Sub-Committee dealt again with a number of very interesting topics. I should like to refer in particular to the feasibility study prepared by the Secretariat on the possible co-ordinating role of the United Nations in future operational activities of remote sensing from satellites, and the conclusions and recommendations arrived at on the basis of the discussions thereon.

Another item to which we attach great importance is the question of convening a United Nations conference on space matters. Such a world-wide conference could carry out an evaluation of the progress made and the experience gained in outer space technology and its application in various fields. It would also offer an opportunity for analysing future requirements and potential.

Finally, the Scientific and Technical Sub-Committee once again stressed the need for better co-ordination of activities between the two Sub-Committees, particularly in the field of remote sensing. My delegation at the meeting of the Legal Sub-Committee, in dealing with this question, had put forth the idea of holding a joint or overlapping meeting of the Sub-Committees in order to meet this concern. It falls to this Committee to deal with the matter of co-ordination in a conclusive manner. My delegation is ready to examine any constructive proposal regarding this issue.

Turning now briefly to "other matters", my delegation notes with interest the letter from the Permanent Representative of India concerning the setting up of a regional ground station for remote sensing. We are looking forward to more detailed information on this offer. My delegation is also pleased to note that the subject of solar energy has aroused considerable interest, as evidenced by the working paper prepared by the delegation of Argentina in the Legal Sub-Committee which is now before us.

Permit me to conclude this statement by expressing the firm belief that our work at this session will be successful.
Mr. SANCHEZ PEÑA (Argentina) (interpretation from Spanish):

Mr. Chairman, since this is the first time that I have spoken in the Committee on the Peaceful Uses of Outer Space, I wish to express the satisfaction with which I have followed from my post of President of the National Space Research Commission of Argentina your activities in your high office, and I wish to congratulate you on them and for the significance of your statement at the inaugural meeting of this session.

I shall make a brief statement on the means available to the Argentine National Space Research Commission to carry out the co-ordination, promotion and planning of space activities.

During the period 1973-1976, the Aeronautics and Space Research Institute continued its work on DCM and CLAO rockets made in Argentina.

With regard to the DCM rocket, a meteorological research dart, the design of the engine, the dart itself and the launching pad have been modified. The CLAO I rocket, an anti-ball rocket, is being developed with two options; the second rocket in the same series has been redesigned and four prototypes have been built and flight tested; development continues this year.

Argentina has two sounding rocket launching facilities, one in Chemical, Province of La Rioja, and the other in Mar Chiquita, near Mar del Plata, Province of Buenos Aires.

The EXAMNET programme -- that is the Inter-American Experimental Rocket-Based Meteorology Network -- has continued with the launchings agreed on at the annual meeting held in October 1975 in Brazil. The total number of launchings carried out between 30 June 1975 and 31 March 1976 was 15. I should add here that this year launchings will be made on a weekly basis.

During the period September-October 1975, at the Antarctic base, "Comandante Marenghi", we undertook the First International Experiment on Converging Points. The experiment consisted in the launching of two DCM rockets, made in Argentina, which carried a payload of 46 kilograms to an approximate height of 460 kilometers; from it a cloud of plasma was ejected, with initial velocities of 9.3 and 14 kilometers per second. The payload was developed by the Max Planck Institute of the Federal Republic of Germany. The visible cloud of barium ions travelled through the lines of the magnetic field in a "flow tube" over the Southern Hemisphere, attaining a maximum altitude of 9,000 kilometers over the magnetic equator, and continued over the Northern Hemisphere descending into the ionosphere at the converging point north of Bermuda, having covered a total of 33,600 kilometers in an interval of between 80 and 100 minutes. The ejected cloud was observed and recorded by Argentine observation stations at various points and also from a Lear Jet aircraft of the United States agency NASA at the converging point.

In the field of astronomy, two programmes have been developed in Argentina. The so-called "Solar-Wind Comets", initiated in 1965, had as its purpose the preparation of a "Solar-Wind Comets" atlas, the astrometry of comets and the construction of a centre for applied celestial mechanics. The programme has continued this year with similar experiments.

The other programme is the Galaxy experiment with balloons. During the month of March and the first half of April this year, three stratospheric balloons were launched with a small hard X-ray detector.

We have noted with interest the mention made by the COSPAR representative of the use of balloons to carry scientific instruments for space research. In this regard, my country has, for several years, been conducting experiments as part of international scientific co-operation programmes with other nations in meteorological and astronomical research. Based in Argentina, those experiments had payloads developed by the participating countries -- in particular, France, the United States, the United Kingdom -- as well as by Argentinian scientific groups.

I wish to take this excellent opportunity to convey my country's offer to scientific groups from other nations to use our facilities and to join their efforts with those of our scientists with a view to carrying out experiments of common interest.
Argentina has also undertaken a National Programme for the Remote Sensing of Natural Resources involving photo-interpretation and analysis of images obtained from satellites and rockets. This work has made possible studies on cartography, soil utilization and agriculture.

Furthermore, we should mention the National Anti-Hail Programme, which consists in the seeding of cumulus clouds by the ejection of appropriate lead-iodide chemical substances from the CLAO rockets I already mentioned. As part of that Programme, we signed an agreement with the Italo-Latin American Institute (ITLA), of Rome, to promote the exchange of experts and information.

One may appreciate the importance of the last two national programmes -- the remote sensing programme and the anti-hail programme -- in view of their impact on the administration and utilization of the earth's natural resources.

With regard to the report of the Scientific and Technical Sub-Committee, the delegation of Argentina is pleased to point out the variety and content of the documents and scientific papers that were available to that Sub-Committee in its work.

As for the remote sensing of the earth by satellites, my delegation believes that there are no differences between the elements of the system in the pre-operational and operational phases, and that, above all, there is no differentiation whatsoever in legal treatment among the questions involved in remote sensing in any of its phases.

It is satisfactory to note that, according to the report, several systems will be available in the 1980s.

Our delegation believes that study must continue on the definition of "natural resources" and "data on the earth's natural resources obtained through remote sensing", and we value the efforts made so far in that field by some delegations.

Argentina considers that the United Nations can perform a first-rate coordinating role in the field of remote sensing by satellites even in the experimental phase, and that such function will become increasingly important, particularly when we reach the operational phase.

Among the difficulties referred to, my delegation believes that the establishment of a working group directly responsible to the Committee to study the items on the agenda of both Sub-Committees could be of benefit by providing a co-ordinating element in their work, in the light of the fact that, for the time being, it is not possible for those Sub-Committees to meet simultaneously.

We have read with interest and followed with attention the work done by the Expert on Space Applications, and congratulate him on his efforts.

Concerning the convening of a United Nations conference on outer space, the delegation of Argentina notes that a resolution on that subject should not be delayed, and that such a conference should not be held more than 10 years after the Vienna Conference, which met in 1968 -- in other words, not later than 1978.

My delegation endorses the recommendation in the report of the Scientific and Technical Sub-Committee to renew the backing given to the sounding rocket facility, "CELPA Atlantic", at Mar Chiquita, in the vicinity of Mar del Plata, and we hope that the Committee shares this view.

In considering the report of the Legal Sub-Committee, the delegation of Argentina considers that every effort should be made to have the draft treaty relating to the Moon applied to other celestial bodies, as well as to other celestial bodies and their natural resources.

The most important aspect of this draft, which is, in the view of our delegation, the justification for concluding an instrument separate from the 1967 Treaty, is that of the application of the common heritage of mankind to the Moon and its natural resources. This principle is the best legal synthesis yet achieved in contemporary international law, and although the question was presented for the first time and debated in this Outer Space Committee, it is already a commonplace in other Committees, such as the sea-bed Committee, which has endorsed it, and is part and parcel of the new developments of international environmental law and international energy law.
We do not believe that this question can continue as the subject of an ongoing debate, since it is accepted by all peoples and by the vast majority of States, not only in this Committee but also in other bodies of the United Nations.

With regard to direct broadcasting, this delegation is pleased to note that the general principles elaborated by the Legal Sub-Committee coincide with those of the Argentine draft convention. With regard to the legal principles on the re-sensing of natural resources, the delegation of my country believes that what we have so far been achieved merits its approval and expresses the fervent hope that the settlement of such an important question along the lines of the draft treaty of Latin American countries will not be delayed.

The Argentine delegation to the Legal Sub-Committee submitted on 23 May of this year a working paper entitled, "International problems arising from the exploitation of solar and other related energies", which has been distributed by this Committee as document A/AC.105/L.91, dated 9 June 1975. We have also the background paper prepared by the Secretariat on "Solar power stations in space" (A/AC.105/101/REV.1), which shows the need for our Committee to study solar energy and its derivatives, as other United Nations bodies have done. In this regard, the Argentine delegation believes that this should be the next item on the agenda and that, if no consensus is reached on the draft treaty relating to the Moon at this session, solar energy should replace it as an item and the former item be eliminated from the agenda. If it is better to rely on what we have already achieved by way of a space treaty or to have an imperfect international instrument which would not signify any progress in the legal regulation of outer space and terrestrial bodies.

With reference to document A/AC.105/L.88 on consultation with the Committee of Experts, our delegation believes that it would be incompatible with the working needs of this Committee to hold biannual meetings. On the contrary, we consider that one of its subsidiary bodies, the Legal Sub-Committee, should meet for at least six weeks a year, somewhat expanding its term, as the International Astronautical Federation has been carrying out for over a quarter of a century. Argentina was one of the few founding members of that Federation, and it therefore welcomes that resolution.

Finally, I should like to express the wish of the Argentine delegation that the nineteenth session of this Committee may lead to the best results and benefits for the entire international community.
Mr. SHIGETA (Japan): Mr. Chairman, since this is the first time that my delegation has spoken at the current session of the Committee on the Peaceful Uses of Outer Space, my delegation would like to say at the outset how pleased we are to see you once again in the Chair of this Committee, guiding us in our work. My delegation is confident that, under your experienced and able guidance, the deliberations of this Committee will be carried out in the most efficient and successful manner. As far as my delegation is concerned, it is ready to extend its fullest co-operation to you, Sir, in the discharge of your heavy responsibilities during this session.

Mr. Chairman, my delegation is very pleased to note that international co-operation in the field of the peaceful uses of outer space is expanding year by year, as exemplified by some of the important events in space activities mentioned by you in your opening statement.

Given the nature of space activities, which transcend national boundaries, the use of space technology creates international problems as well as the potential for the solution of problems on a global and regional level. At the same time, precisely because of this vast potential, it can create international problems.

My delegation is gratified to note that, so far, the development of space technology has been accompanied by, and has stimulated, the development of international co-operation. In the view of my delegation, it is the task of this Committee to encourage the parallel development of space technology and of international co-operation.

Turning now to the substance of our work, which is to review the work of our two Sub-Committees during this year and to chart the new courses of action that we are to take in the future, my delegation would like to begin with the report of the Legal Sub-Committee on the work of its fifteenth session.

It is the view of my delegation that the Legal Sub-Committee did an excellent job during the fifteenth session. First of all, the Legal Sub-Committee made rather substantial progress in its work of elaborating principles governing the use by States of artificial earth satellites for direct television broadcasting.
My delegation believes that the Legal Sub-Committee could very well continue the work it started this year in this field, following virtually the same lines of work as it adopted this year. But, in so doing, the Legal Sub-Committee must be careful not to darken the bright future of this technology by adopting a restrictive policy with regard to remote sensing activities and the dissemination of data acquired therefrom. While we appreciate the concerns expressed by some delegations about the possible abuse of this technology to the detriment of the interests which has been reflected in a new common element, (c), mentioned in paragraph 7 of annex III to the report, it is in the view of my delegation that the work of the Legal Sub-Committee in this field should be carried out with utmost care and with a clear appraisal of the consequences of the different policies to be adopted.

With regard to the treaty relating to the Moon, despite the serious efforts made by various delegations to reach a compromise solution on the few remaining issues, the Legal Sub-Committee was not able to alter the basic situation, which is one of stagnation. However, my delegation believes we should not be unduly discouraged by this lack of progress because the exchange of views which took place in the Legal Sub-Committee was useful in further clarifying the issues to be resolved. My delegation is in favour of taking this item high priority in the work of the Legal Sub-Committee during the next year.

Having in mind the considerations set out above, my delegation is ready to endorse the work done by the Legal Sub-Committee during its fifteenth session and also to approve the plan of work of the Legal Sub-Committee for the next session, as set out in paragraph 17 of its report.

Turning now very briefly to the report of the Scientific and Technical Sub-Committee of remote sensing and space matters, my delegation would like to observe that the Sub-Committee has done useful work during its thirteenth session, particularly with regard to the major item on its agenda — namely, the consideration of questions relating to remote sensing of the earth by satellites — on the basis of excellent studies prepared by the Secretariat. My delegation believes that the Scientific and Technical Sub-Committee should next year continue its work in this field so as to further clarify technical, organizational and financial aspects of remote-sensing activities, thus giving necessary assistance to the Legal Sub-Committee in its consideration of the legal implications of remote sensing from space. Therefore my delegation would like to endorse the work done by the Scientific and Technical Sub-Committee in this field during its thirteenth session, as well as its request to the Secretariat for further studies contained in paragraph 82 of its report.

At this stage, my delegation would like briefly to add itself to one of the various aspects of remote sensing activities which the Scientific and Technical Sub-Committee can clarify for the benefit of the Legal Sub-Committee — namely, the question of definition of terms with regard to remote sensing activities.

My delegation believes that, while the Scientific and Technical Sub-Committee can play a useful role in clarifying technical and scientific criteria for the definition of terms such as "data on the natural resources of the earth" or "remote sensing", it is not appropriate to rely on those criteria for such definitions. In the view of my delegation, the Legal Sub-Committee should work out the necessary definition of terms, taking into account the technical and scientific criteria for such definition as well as the function of such definition in the context of its work.

With regard to the programme on space applications, my delegation would like to note that the Expert Group on Space Applications, Mr. Murthy, has done an excellent job within the limited resources available. In this connection my delegation wishes to reiterate its view that this programme should be expanded in both content and scope, the necessary funds being provided.

With regard to the options relating to a possible United Nations conference on space matters, my delegation believes the Scientific and Technical Sub-Committee should continue to consider this question in the light of the study to be submitted by the Secretariat on the objectives of such a conference, its scope, the organizational arrangements needed to reach the objectives identified, and its financial implications.

Before concluding this statement, my delegation would like to observe that, as a result of multidimensional and rapid progress in space technology, the importance of the practical application of space technology for the economic and social development of all countries is growing year by year, and, with it, the importance of international co-operation in the field of the peaceful uses of outer space is being heightened. My country is ready to make its best effort in order to further that international co-operation.
Mr. Lopez Bassols (Mexico) (interpretation from Spanish): Mr. Chairman, heeding your recommendation of yesterday, my delegation has decided to participate in the debate this morning.

Mr. Chairman, the Mexican delegation is pleased to see you again presiding over our meetings because we interpret that as an augury of the success of our work. In your first statement you clearly and precisely established the subject on which we should focus our attention, and you very wisely reminded us of a new field of study in the body of space law. Now we are called upon once again to examine the results of the work of our two Sub-Committees and to formulate recommendations to the General Assembly.

May I first of all congratulate the Chairman of the two Sub-Committees on their respective work.

My Government understands that it is of special importance for the international community to ratify the instruments that have emerged from this Committee as soon as possible, and it therefore recently signed the Convention on Registration of Objects Launched into Outer Space.

We reiterate that the work of the fifteenth session of the Legal Sub-Committee was particularly fruitful. On two of the priority items considerable progress was made and, concerning the draft treaty relating to the Moon, the delegations seemed to come closer to a compromise formula. But any instrument may adopt should contain the principle that the Moon and its natural resources are the common heritage of mankind.

The Argentine delegation has in a document already clearly stated the significance of this principle. It is also obvious that we will have to elaborate some legal principles which would have interim effect until the international régime came into force. If, unfortunately, no compromise formula is reached, the developing countries would then like priority consideration to be given to the subject of remote sensing.

Thanks to the leadership of Mr. Mishra of India and to the readiness to compromise evidenced in the Sub-Committee's working Group II on direct television broadcasting was able to make considerable progress. We shall have to consider this item again next year in relation to the principles of prior consent and participation, which, as we know, are the touchstones of the future international instrument.

In that regard my delegation has submitted a working paper which appears as Annex V to the report of the Legal Sub-Committee. We shall refer to that working paper at the appropriate time.

For the developing countries, remote sensing of the earth from space is of particular interest. That is an activity which has an undoubted effect on the permanent sovereignty of States over their resources and on the right of States to information obtained within their national jurisdiction. We therefore emphasis our interest in the continuation by the Sub-Committee of its detailed legal study, to result in the preparation - as was done for the five existing principles - of a treaty on remote sensing as soon as possible. That is a subject on which the Latin American Delegations have made a proposal.

We are very appreciative to the Secretariat for the valuable documents it has made available to delegations. In passing, I would confirm that our delegation fully agrees with resolution 3388 (XXX) with regard to the measures that the Secretary-General should take to strengthen the Outer Space Affairs Division as soon as possible.

The need to co-ordinate the work of the two Sub-Committees on the question of remote sensing is obvious -- if necessary, through the establishment of a working group. But that does not entail a limitation on the efforts to formulate basic legal principles. It is quite true that, as has been said in this Committee, the law is being established before the technology, available to far fewer countries, can overtake it. Therein lies a challenge to the jurists.

Our country benefited from the United Nations programme on space applications in playing host to a regional joint United Nations-UNESCO seminar on satellite broadcasting for education and development.
My delegation is, in principle, interested in a United Nations conference on the applications of space technology, but we think it must be preceded by a careful analysis of the possible results of such a costly undertaking. In that regard, we support the recommendation in paragraph 103 of the report of the Scientific and Technical Sub-Committee.

We would note the confidence that the Government of Mexico has in the role that is played and, basically, should be played by this Organization, particularly in remote sensing activities.

In conclusion, we believe that the work of this Committee will require increasing amounts of time, and we therefore cannot agree to any reduction in the time allotted to our sessions or, even more, to any reduction in the frequency of our sessions.

Those were a few very general observations on the subjects we are considering. At the appropriate we shall make more detailed remarks. We wish at this time to express our best wishes for the fruitful work of this Committee.

The CHAIRMAN: Before adjourning this morning's meeting, I call on the representative of Bulgaria, who wishes to make a brief statement.

Mr. VUKOV (Bulgaria) (interpretation from Russian): I wish to make a brief statement, not in the general debate now going on in this Committee but in a matter which does have a bearing on that general debate.

The wire services this morning announce that on 22 June -- that is, yesterday -- the Soviet Union launched into orbit a new space station, Salyut-5.

I should like warmly to congratulate the Soviet delegation to this session of the United Nations Committee on the Peaceful Uses of Outer Space. I wish the new Soviet space experiment great success. I am sure that this new step in the conquest of space will promote the further development of international cooperation in this field and thereby will enhance peaceful coexistence among nations.

I trust that the sentiments of the Bulgarian delegation in this regard are shared by all the members of this Committee.

The meeting rose at 12.30 p.m.