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COMMITTEE ON THE PEACEFUL USES OF OUTER SPACE

VERBATIM RECORD OF THE TWO HUNDRED AND THIRTY-SECOND MEETING

Held at Headquarters, New York,  
on Tuesday, 23 March 1982, at 10.30 a.m.

Chairman: Mr. JANKOWITSCH (Austria)

Organization of work

General exchange of views (continued)

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82-60318

The meeting was called to order at 11.00 a.m.

#### ORGANIZATION OF WORK

The CHAIRMAN: Before calling on the first speaker, I have a few announcements and a few proposals to make to the Committee.

First of all, may I appeal to representatives, as I have in past years, to make every effort so that we may start meetings on time. We have a very short meeting period this year and it would be very helpful if delegations would make every effort to meet the time for beginning our meetings as closely as possible.

Secondly, I have received another request from a Member State of the United Nations, namely, the United Republic of Tanzania, to be allowed to follow this session as an observer and I would propose that we grant that request under the same conditions and in the same spirit in which we granted a number of similar requests yesterday.

It was so decided.

The CHAIRMAN: Yesterday we adopted an agenda which includes, as item 6, the consideration of the elaboration of a draft set of principles governing the use by States of artificial earth satellites for direct television broadcasting. We are acting in this regard under a mandate from the General Assembly contained in resolution 36/35, paragraphs 7 and 8.

In order to facilitate preparation of the consideration of this agenda item, I would, after consultations with delegations, suggest that we set up an informal working group and that we ask Mr. Danielsson of Sweden to be the chairman of that working group. I would suppose that it would meet later on in the session. In the meantime, its chairman would have an opportunity to consult with representatives about the way in which we should attack this agenda item.

If this proposal is agreeable, I suggest we proceed accordingly.

It was so decided.

The CHAIRMAN: I congratulate the Chairman of the Working Group and wish him, on behalf of everyone, luck and success in his work.

GENERAL EXCHANGE OF VIEWS (continued)

The CHAIRMAN: I would suggest that in order to complete our examination of this item quickly, we close the list of speakers today at 12 noon.

It was so decided.

Mr. van WELL (Federal Republic of Germany): I should first like to thank our Chairman, Ambassador Jankowitsch, Ambassador Wyzner and Professor Carver for their efforts in guiding the Committee on the Peaceful Uses of Outer Space and its Sub-Committees with great skill and dedication through last year's sessions.

The Committee opened this year's session yesterday when the United States orbital Columbia had just been launched at Cape Canaveral and its happy crew was starting its work for the benefit of science and us all. I myself was present at the launching, having received a generous invitation from the United States Government. It is with great gratitude and appreciation that I mention this here. It was a great day for those directly engaged in the programme, for the people of the United States and for all those engaged in the peaceful uses of outer space. I wish to extend our warmest congratulations to the United States delegation.

I should like to recall one impression that was particularly relevant to the work of our Committee, and that is the considerable degree of international co-operation at the Kennedy Space Center. I was touched by the great interest and pride shown by the directors and scientists at the Center in their joint endeavours with colleagues of other countries and, in my case, with Western Europe and the Federal Republic of Germany.

(Mr. van Well, Federal Republic  
of Germany)

This year's session of the Space Committee naturally focuses on the important Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space, to be held in Vienna this summer. This is an area of technological development which, as a result of its complexity and the considerable material and intellectual input involved, requires international co-operation. The Federal Republic of Germany recognizes the importance of the Conference and is looking forward to it with great interest.

On behalf of my delegation, I wish to thank the Secretary-General of UNISPACE-82, Professor Yash Pal, and his able staff for their dedicated work. We pledge our support and co-operation to ensure that UNISPACE-82 will be the success we all hope for.

The preparations for UNISPACE-82 show that this Conference will provide not only a survey of the accomplishments of space flight to date but also an opportunity for initiating an honest, bold and at the same time realistic examination of its potential uses.

One such review in which my country has played an important part and which is mentioned in the draft Conference report we are to discuss in the Preparatory Committee is the pre-feasibility study on the introduction of the satellite-based regional telecommunications system for rural areas in Africa. While the Space Committee is meeting here, representatives of African Governments are holding a conference in Addis Ababa, where that study, which was funded and conducted by the Federal Republic of Germany within the framework of the International Telecommunication Union (ITU), is to be presented.

(Mr. van Well, Federal Republic  
of Germany)

Without wanting to anticipate the results of that meeting, I would stress the importance which my country attaches to the use of telecommunications in the development of rural areas. This study indicates that space technology could be one of the answers. But the study also identifies the factors on which the lasting use of that technology and the benefits to be derived from it will depend. Application-oriented space technology should not be seen in isolation as an end in itself, but as one solution in competition with other, purely terrestrial, solutions. Only if it proves functionally and economically superior to terrestrial alternatives will space technology in the long run hold its own among the various technologies. This is particularly important in view of the limited funds available. Because of their long-term effects, decisions will have to be made carefully and selectively. My delegation acknowledges the emphasis which the draft Conference report places on the economic and social prerequisites for and the consequences of such decisions.

Last year again, the space activities of the Federal Republic of Germany were characterized by international co-operation, both multinational in the joint European programme of the European Space Agency (ESA) and bilateral, principally with the National Aeronautics and Space Administration (NASA) and France.

After the first successful flights of the space shuttle, the launching of the European Spacelab Laboratory, in which the industry of my country played a prominent part, is now scheduled for the autumn of 1983. NASA received the first flight unit on 4 December 1981. This was an important contribution to the American space shuttle programme by European countries. Another set of laboratory units is being manufactured. The emphasis of the German Spacelab Utilization Programme is on the development of a laboratory facility for materials and process research. On 28 April 1981 a memorandum of understanding was signed with NASA which is to serve as a basis for the German D-1 Spacelab mission scheduled for 1985, in which ESA and other countries will also participate. To complement the space shuttle-Spacelab system, the Federal Republic of Germany is making preparations within the ESA framework for the development of trend-setting reusable versatile space platforms.

The development programme of the European launcher Ariane was successfully concluded with the smooth third and fourth experimental launches on 19 June and 20 December 1981. The Federal Republic of Germany is also involved in the Ariane 4 project, which should prove to be more efficient and more economical.

(Mr. van Well, Federal Republic  
of Germany)

In the important field of satellite communications, we have begun developing the TV-SAT broadcasting satellite together with France. On 29 September 1981 the two Governments concluded a further agreement on technical and industrial co-operation in marketing and exporting these broadcasting satellites.

In line with the world-wide interest in remote sensing by satellite, the Federal Republic of Germany continues to participate in the preparation of such a satellite programme by ESA. The prime industrial contractor is to be a German company. Following the successful launch of the European meteorological satellite, METEOSAT 2, the pictures it transmits daily can be seen on German television.

Extraterrestrial research has always been an object of international co-operation. Having been in operation for seven years now, the United States-German solar probe, HELIOS, is able to supply data on both the solar activity minimum and maximum. The experience with HELIOS has enabled German scientists to play an important role in the development of the European Space Agency's GIOTTO probe to Halley's Comet. An X-ray satellite project, named ROSAT, is being planned in co-operation with the British Science Engineering and Research Council and NASA.

The Federal Republic of Germany will be presenting major elements of these activities at the exhibition to be held in Vienna. My delegation expects UNISPACE 2 to provide important impulses not only for the future development of space flight, but also for the further discussion of the problems for which this Committee and its Sub-Committees are seeking generally acceptable solutions. While such solutions should not hamper the positive further development of technology and the enlargement of its benefits, they will have to take into account concerns about possible harmful effects to man and his environment. The fact that the assessment of the benefits and detrimental consequences of activities in space receives so much attention today is perhaps the best indication that, following the initial stages, those activities have now developed into a mature and versatile technology. This increases the hopes, but also the responsibilities, of all countries involved, now and in the future.

Mr. KNUTH (German Democratic Republic): The delegation of the German Democratic Republic is pleased, Sir, to see you again serving as Chairman of a session of the United Nations Committee on the Peaceful Uses of Outer Space.

(Mr. Knuth, German Democratic  
Republic)

You are widely renowned for your energy, experience and abilities, qualities which we believe will guarantee a businesslike and constructive approach during the proceedings at this session of our Committee.

Unfortunately, we have to notify you and the Committee that the work of our delegation to the twenty-fifth session of the Outer Space Committee has been seriously impeded.

Originally, this statement to the Committee was to have been made, as in recent years, by the head of the delegation of the German Democratic Republic, Mr. Guenter Maennig, of the Ministry of Foreign Affairs of the German Democratic Republic. This is not possible, however, because the competent organs of the host country to United Nations Headquarters, the United States of America, refuse to grant Mr. Maennig an entry visa. This is all the more serious since Mr. Maennig has been actively involved in the preparations by the German Democratic Republic for the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space and is now prevented from personally attending this crucial session of the Preparatory Committee.

The German Democratic Republic has felt compelled to inform the Secretary-General of the United Nations about this grave incident.

My delegation protests against this course of action taken by these United States organs, which constitutes a serious violation of the agreement of 26 June 1947 between the United Nations and the United States of America regarding the Headquarters of the United Nations. We expect this measure will be revoked forthwith and that Mr. Maennig will be enabled to attend this session.

Since the twenty-fourth session of this Committee, there have been quite a number of valuable scientific and technological achievements in the various fields of space exploration and research, adding further to our knowledge of processes and phenomena occurring in outer space. This has again substantiated the fact that the peaceful exploration and uses of outer space are important fields opening up tremendous vistas for the over-all development of science and technology which, in the final analysis, would truly benefit all peoples on our globe.

(Mr. Knuth, German Democratic Republic)

The delegation of the German Democratic Republic holds in high regard and commends especially the accomplishments of Soviet space research, which posted an outstanding landmark when launching the first SPUTNIK 25 years ago. In a few days' time, the Soviet orbital station SALYUT-6 will have been orbiting the earth for 54 months. During this time, 33 cosmonauts from the USSR and the other States participating in the INTERCOSMOS programme have worked aboard the station. We have followed with great attention the recent soft landings of the Soviet space probes VENUS-13 and VENUS-14. It is a remarkable feat that, for the first time ever, colour photographs could be produced of that neighbouring planet's surface, as well as that an on-the-spot analysis of extracted soil could be made aboard the space vehicles.

At the same time, the delegation of the German Democratic Republic would like to seize this opportunity to offer congratulations to all the other delegations whose countries have recently made commendable contributions to research in the peaceful uses of outer space.

This year will mark the fifteenth anniversary of the signing and coming into force of the Outer Space Treaty, which is an essential basis for the work of our Committee too. The Treaty sets out that activities of the States parties shall be carried on

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

The Treaty also forbids the stationing of any nuclear or other kind of weapon of mass destruction in outer space as well as the establishment of military bases, the testing of any type of weapons and the conduct of military manoeuvres on celestial bodies.

At the present time, when the international situation is worsening because of the course of confrontation steered by imperialist forces, observance of the Treaty's provisions is particularly urgent. In face of the clear signs indicating that these circles are indeed out to use outer space too for their policy of arms build-up and confrontation and of the dangers that those schemes entail for international peace, the German Democratic Republic regards the adoption of the resolution entitled "Conclusion of a treaty on the prohibition of the stationing of weapons of any kind in outer space" at the thirty-sixth



(Mr. Knuth, German Democratic Republic)

session of the General Assembly as both timely and very pressing.

Since these issues are closely related to all other questions concerning halting the arms race, our country considers it necessary for the Committee on Disarmament at Geneva to start negotiations aimed at drawing up the text of a relevant treaty.

My delegation holds the view that the further preparation for UNISPACE 82 is an important task of our Committee. We expect the Conference to be a valuable international forum for the exchange of opinions on scientific-technological experience gained in the peaceful uses and exploration of outer space, so as to be advantageous for all participants.

It has already been emphasized on various occasions, and again during the visit that Professor Yash Pal, Secretary-General of UNISPACE-82, paid to the German Democratic Republic in September 1981, that my country attaches great importance to this Conference. We take this opportunity to thank Professor Yash Pal, the members of his secretariat and the Outer Space Affairs Division for the comprehensive and extensive work which has been done so far.

The present session of our Committee also coincides with the last set of meetings of the Preparatory Committee before the Conference takes place. This underscores the urgency of solving those questions that are still pending. My delegation wants to point out that the machinery at present co-ordinating co-operation of United Nations organs in questions concerning outer space has proved to be efficient. We see no need to have this machinery changed.

At this stage of the debate I should like to make some observations relating to special questions which are on the agenda of our Committee.

Discussions have now been going on for more than a decade with a view to preparing and adopting principles governing direct television broadcasting by satellites. Step by step, the positions of many States could be reconciled and compromises made. Some States, however, have failed to show the necessary political will to set up a legal régime acceptable to all parties concerned. Obviously those States are interested in promoting a state of affairs that would give them a free hand to make unrestricted use of outer space for activities that would affect the sovereignty of other States.

(Mr. Knuth, German Democratic Republic)

The same goes for problems that are related to remote sensing of the earth by satellites. The delegation of the German Democratic Republic endorses the position held by the majority of States that a sensed State must be protected from misuse of information collected from data obtained over its territory. Therefore, every State should have the right to decide itself on the distribution of a specific category of data and information gained therefrom. The German Democratic Republic would deem it useful if as a first step every State indicated to the United Nations the resolution parameters up to which data obtained over its territory may be distributed. Such an indication, in conjunction with the basic principle that information obtained from remote-sensing data may not be used to the disadvantage of the sensed State, would considerably diminish the danger of misuse.

The German Democratic Republic reiterates its view that the geostationary orbit constitutes an integral part of outer space and that no State may claim national rights over that segment. To prevent the individual segments from becoming crowded, the use of geostationary orbits should be planned in an appropriate way. The delegation of the German Democratic Republic would like to emphasize that the question of defining and/or delimiting outer space is of great importance, both in theoretical and in practical terms. My delegation would wish to see that question considered as a matter of priority in a working group of the Legal Sub-Committee. To rule out possible differences in interpretation, the "homo-pause" of the earth's atmosphere should be defined as the lowermost borderline of outer space running at an altitude of 100 kilometres.

In conclusion, I wish to add some remarks on the major activities of the German Democratic Republic with regard to the exploration and peaceful uses of outer space which were carried out under the INTERCOSMOS programme.

Altogether, the German Democratic Republic has been over the past few years directly involved in some 50 out of the 120 major INTERCOSMOS experiments performed on board SALYUT-6 concentrating its efforts on the taking of multispectral pictures by means of the space station's MKF-6M multispectral camera and on tasks relating to the preparation, conduct and evaluation of in-flight scientific experiments carried out by cosmonauts of various nationalities.

(Mr. Knuth, German Democratic Republic)

By means of relevant scientific equipment on board the INTERCOSMOS IK-21 remote sensing satellite, which was developed mainly by the USSR, the German Democratic Republic and Hungary, significant spectrometric readings about atmospheric influences on remote sensing data were yielded. Comparative measurements conducted from research vessels produced valuable results.

A three-week training seminar devoted to the processing of multispectral pictures and their interpretation took place at Potsdam with experts from the USSR, the German Democratic Republic, Cuba and Viet Nam participating.

A training course on geophysics, seismology and tectonics, which was jointly sponsored by the German Democratic Republic and the United Nations Educational, Scientific and Cultural Organization (UNESCO), was attended by 24 scientists from 14 countries, among them 11 developing countries.

As was the case last year in Sofia, the German Democratic Republic will also in future send experienced scientists to participate in seminars and training courses under the United Nations outer space programme; for instance, it will be sending a lecturer to the next course to be held in a few weeks' time in Ecuador's capital, Quito.

The delegation of the German Democratic Republic is well aware that there are complex and difficult questions on the agenda to be dealt with by our Committee, and this requires goodwill and a willingness to compromise on the part of every delegation in order to ensure that our deliberations will be successful.

I should like to assure you, Mr. Chairman, that my delegation will lend its best efforts to help reach this goal.

Mr. THUNBORG (Sweden): Mr. Chairman, it is with great pleasure that my delegation sees you once again presiding over the Committee on the Peaceful Uses of Outer Space. We look forward to working under your wise and experienced leadership during this session of the Committee when we have important tasks before us. We are confident that you will guide our deliberations to a successful conclusion.

This session is of particular significance not only because of the matters we have before us - I am thinking, in particular, of the preparations for UNISPACE-82 and the question of direct broadcasting satellites - but also because

(Mr. Thunborg, Sweden)

it is taking place during the year of the twenty-fifth anniversary of the beginning of the space age and of the establishment of this Committee. Twenty-five years ago, only a few could envisage the development that would take place after the exciting first steps of discovery and exploration and that today the use of outer space for practical applications would have become so important.

It is therefore pertinent that we are marking this anniversary with a Conference having as its aim to make it possible for all countries to share the benefits of the progress made in the field of space science and technology.

We have almost got used to spectacular leaps forward in the space programmes of the traditional space Powers - the United States and the Soviet Union. The United States has opened up a new phase of development with the space shuttle. I was invited to witness the successful third launch of the first reusable launch vehicle, Columbia. I wish to express my sincere appreciation to the United States Government for giving me this opportunity to be present at the launch. The Soviet Union has pursued its programme of manned space flights with a number of flight-duration records and promising possibilities for future development.

In the area of international co-operation, we note that the International Maritime Satellite Telecommunications Organization (INMARSAT) has started to operate by using, inter alia, the MARECS satellite developed by the European Space Agency (ESA).

I have referred to the United States and the Soviet Union as traditional space Powers because an increasing number of other countries are making important efforts in this field, either individually or in co-operation with other countries. A few examples will illustrate this development.

On a regional level, the European launcher Ariane has been declared operational after a third successful test. ESA has advanced plans for a remote sensing satellite programme called ERS. Preparations are under way to form a European organization, EUTELSAT, for satellite telecommunications. France and the Federal Republic of Germany are working jointly on direct broadcasting satellites and, recently, the United Kingdom has decided to introduce television by direct broadcasting by satellite in 1986. India, Japan and China are also actively pursuing their space programmes.

(Mr. Thunborg, Sweden)

As far as Sweden is concerned, a decision has been taken to launch a small scientific satellite, VIKING together with a French-Swedish remote sensing satellite, SPOT, in 1984. A definition phase for a telecommunications project, Tele-X, is being carried out in co-operation with Norway and Finland. The next phase is foreseen to start in July. Discussions are going on regarding the possibilities of defining and establishing a satellite system, in co-operation with the Nordic countries, for the distribution of television programmes and other telecommunication services.

After having mentioned these positive developments, I cannot fail to draw attention to another aspect of development in outer space, namely, the increasing and disturbing trends towards an extension of military competition into outer space. I believe that the members of this Committee are well aware of the concern of my Government in this regard. Therefore, I shall not reiterate our position. We feel strongly, however, that there is a need for urgent action before it is too late and before irreversible decisions are taken. In this respect I address myself in particular to the two major space Powers. But I also wish to stress that, following the resolutions adopted last year by the General Assembly, the Committee on Disarmament has a responsibility to take measures urgently to prevent an increasing militarization of outer space.

At the beginning of my statement I referred to the forthcoming Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space - UNISPACE. At this session, when the Committee is meeting for the last time as the Preparatory Committee for the Conference, it has the responsibility to try and establish a basis for a successful outcome of the Conference. The most important task before us is to prepare and agree on a final draft of the report of the Conference. On behalf of my delegation, I wish to thank the Secretary-General of the Conference, Professor Yash Pal, and other members of the Secretariat for their devoted work in preparing the second draft and for having done so in good time before this session.

We hope that UNISPACE will improve the possibilities for all countries, in particular developing countries, to make use of the achievements in the field of outer space. Space activities are linked with the area of science and technology.

(Mr. Thunborg, Sweden)

The use of space science and technology should, in our view, be considered in the light of a country's general priorities and development objectives and take into account its economic and social effects. In general, the second draft of the report reflects this objective and emphasizes that the introduction of space technology should not be seen in isolation but in its social and economic context. We welcome the fact that the practical needs for continuous access to data from remote sensing and weather satellites has been underlined. In particular, we are satisfied with the proposal for a study of an international weather satellite system.

(Mr. Thunborg, Sweden)

However, I have to add that we still have some concern with regard to certain parts of the draft report. We are unable to agree to recommendations that go against decisions of the International Telecommunication Union (ITU) or prejudice forthcoming conferences of the ITU. We also fail to understand certain proposals regarding the use of geostationary satellites by countries on high northern latitudes.

We have studied with interest the proposals on the role of the United Nations and institutional arrangements. We fully support the proposed direction of the space applications programme, provided remote sensing remains an important element thereof. Although we have not yet formulated a final position on the proposal for a United Nations space centre, we find it has merits. To take a definite view we need to know that it can be justified, inter alia, because of new functions. In any event the centre should not be given a mandate which interferes with the mandates of the specialized agencies. Nor should there be a duplication of activities going on elsewhere in the United Nations system. We shall make our comments on specific issues and paragraphs of the draft report as they are discussed.

The other important task at this session is the elaboration of principles for direct television broadcasting satellites. In an effort to facilitate further negotiations my delegation presented a working paper at last year's session of the Committee. We hope that that working paper will contribute to the reaching of a compromise at this session. I do not wish to go into details at this stage, but I should like to emphasize that the outstanding issues are very limited indeed. We do hope that all delegations will approach this subject-matter at this session with a sincere wish finally to reach agreement on the formulation of these principles. My delegation is prepared to work hard to achieve this goal.

Finally, let me just confirm that the views of my delegation concerning remote sensing satellites, the use of nuclear power sources in outer space, the delimitation of outer space and the geostationary satellite orbit remain the same as expressed at the meetings of the two Sub-Committees this year.

Mr. TROYANOVSKY (Union of Soviet Socialist Republics) (interpretation from Russian): Mr. Chairman, first of all I should like to congratulate you on your again serving as Chairman of the Committee. We have no doubt that you will do your duty with your usual efficiency and at a very high level.

I should also like to express satisfaction at the work of the Scientific and Technical Sub-Committee, led by Professor Carver of Australia, and the work of the Legal Sub-Committee under Ambassador Wyzner of Poland. We commend them for the work they have done, and we congratulate them on the reports they have submitted to the Committee at this session.

This year the opening of the session of the Committee has coincided with the beginning of spring. But March is not only a spring month; it is, so to speak, a space month as well, because 20 years ago, on 16 March 1962, the Soviet Union embarked on its programme of launching COSMOS satellites into space. This year, at the beginning of March, a soft landing has been made on the surface of the planet Venus by apparatus lowered from the VENUS-13 and VENUS-14 scientific-research space vehicles. During that experiment a colour picture of the panorama of the surface of Venus was obtained for the first time, which is of overriding importance for the investigation of the mysteries of that planet. The scientific results of that experiment have been published in Soviet periodicals and are fully available to the scientific community and the public at large throughout the world. Therefore we shall not go into that matter in any more detail.

In 1981 the INTERCOSMOS programme of international flights into outer space was completed. Between 1978 and 1981, nine international teams spent time in space. Last year, the Indian artificial satellite BASKHARA-2 was launched from the Soviet Union. Since September 1977 the SALYUT-6 station has been orbiting the earth; five basic crews and 11 visiting crews have spent time on it. On the whole the station has operated on a manned programme for 676 days and nights. We can say that man is beginning to make a home for himself in space.

On 19 June 1981 there was a link-up between SALYUT-6 and COSMOS-1267. As a result, a totally new space design was created. It is the prototype for future large space platforms. In 1981 alone, 124 space-ships were launched in the Soviet Union. Detailed information on the national space activities of



the Soviet Union for 1981 has been submitted to the United Nations in the form of the regular annual report.

I do not think that anyone can today point to a more burning problem than that of maintaining peace on this earth. Solution of that problem depends to a large extent upon reaching agreement on general and complete disarmament, but even partial steps in that direction would help improve the international situation.

Guided by the aim of strengthening peace and international security, the Soviet Government submitted to the United Nations General Assembly at its last session a draft treaty on the prohibition of the stationing of any kinds of weapons in outer space. We express satisfaction that the General Assembly has recognized the need to initiate negotiations in order to agree on a text for a treaty of this kind. The conclusion of such a treaty would not merely help prevent outer space from being turned into an arena for the arms race; it would also open up fresh opportunities for the expansion of international co-operation in the exploration and exploitation of outer space.

This year mankind will mark the twenty-fifth anniversary of the beginning of the space age, which opened with the Soviet launching of the first artificial earth satellite in the history of civilization. Since then space activities have flourished to such an extent that they have had to be regulated through a whole special system of norms and principles - international space law. This young branch of international law continues to develop, although not as quickly as we should like. The situation in respect of the progressive development of space law is as follows.

At its twenty-first session, which took place last month, the Legal Sub-Committee continued work on the set of principles for the remote sensing of the earth. We note with satisfaction that a growing number of States favour regulating the dissemination of remotely-sensed material through international legal norms, and that is quite understandable since certain types of outer-space shots, in particular remote-sensing data with a high degree of space resolution on site, can contain sensitive information relating to natural resources and the economic and defence potential of the sensed State.

(Mr. Troyanovsky, USSR)

Therefore the Soviet delegation considers that the question of disseminating remote sensing data is a key issue in elaborating the draft principles which are to regulate this important branch of outer space activities. The solution of this problem to a large extent would encourage completion of work on the draft as a whole.

The question of the definition and/or delimitation of outer space and other space activities, bearing in mind, inter alia, questions relating to the geostationary orbit, has been a sort of veteran on the agenda of the Legal Sub-Committee. We are compelled to note that the situation in respect of this problem cannot be called anything other than paradoxical. For a quarter of a century now mankind has been actively conquering space; thousands of vehicles created by man are orbiting the earth; dozens of multilateral and bilateral agreements have been elaborated and are in operation, regulating inter-State relations in the field of the exploration and exploitation of this sixth ocean. However, notwithstanding all this, it is still an open question where outer space begins, where that sphere begins in which international outer space law operates. As the Committee knows, in 1979 the Soviet Union submitted a working document to the Committee containing an approach to the solution of this problem. The thrust of that approach is that the problem of delimitation should be solved stage by stage. The proposal was to lay it down as a principle of space law that outer space begins at a height of 100 to 110 kilometres. After that, consideration of this question could be continued in order to determine in a contractual form, that is by concluding an appropriate agreement, the borders between the air and outer space at a height not exceeding that limit.

At the last session of the Legal Sub-Committee the delegation of the Soviet Union together with many other States made great efforts to have a businesslike discussion of the problem of delimitation. However, a number of delegations in essence blocked that constructive work. This situation gives rise to profound regret since the question of demarcating the air and outer space is far from an idle one and affects the vital interests of States and their sovereignty over airspace.

(Mr. Troyanovsky, USSR)

A certain amount of progress was made in examining the question of the possibility of supplementing the norms of international law relating to the use of nuclear-power sources in outer space. Indeed it was a positive element that efforts were concentrated on the most important and practical aspect, that is to say questions relating to giving assistance to States which may suffer as a result of an accident involving a space vehicle with a nuclear-power source on board. That field, which is an extremely humane one, is of interest to all States, both space States and States which do not launch their own vehicles into space. The discussion in the Legal Sub-Committee showed that the problem of the regulation by international law of questions relating to assistance in case of accidents involving space vehicles with nuclear-power sources on board is a complicated and multifaceted one which therefore requires careful study.

An important place in the work of our session will be occupied by the question of direct television broadcasting by satellites. It is no exaggeration to say that we are closer than ever before to completing work on the principles governing direct television broadcasting. It is no mere accident that the thirty-sixth session of the United Nations General Assembly entrusted our Committee with the task of carrying out that final step. It is high time that this problem was solved.

The Soviet delegation expresses the sincere hope that this - let us be frank - small group of countries whose position thus far has made it impossible to complete the work on the principles relating to direct television broadcasting will at this session demonstrate goodwill and a constructive attitude and will take account of the approach of the overwhelming majority of States to this problem.

We are four and a half months away from the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space. It is significant that more than 80 countries took part in the First United Nations Conference, 14 years ago. Over the years since then space science and technology have made great strides and co-operation between States in the context of space has become immeasurably deeper and wider. All this gives us reason to believe that in August 1982 a representative forum of scientists will gather together in Vienna, scientists who will discuss a broad range of scientific and practical problems connected with the exploration and peaceful uses of outer space.

At this session we shall have to discuss the draft report of the Conference. On reading this document we see that the Conference secretariat, under the leadership of Professor Yash Pal, has done a great deal of work for which it should be commended.

The Soviet delegation will state its views on the provisions of the draft report when we discuss that report. We express the hope that the Preparatory Committee will successfully discharge its mandate at this session.

Mr. SHAO Tianren (China) (interpretation from Chinese): Mr. Chairman, we are very pleased to see you once again presiding over the annual session of this Committee. Please allow me to express our thanks to you for the contributions you have made to the work of this Committee. We hope that under your chairmanship and with the joint efforts of all participants, the present session will achieve satisfactory results.

In less than one year, since the last session, further progress has been achieved in space science and technology in a number of countries. The successful launchings of the American space shuttle and the two soft landings and explorations on Venus by Soviet spacecraft are examples of these important achievements. Progress in space activities has also been made by the European Space Agency and by Japan, India and some other countries.

This period also saw certain achievements in space science and technology in China. In order to continue to explore outer space and improve space technology, we successfully launched a group of space physics exploration satellites on 20 September 1981. This is the first time we have launched three satellites with a single vehicle. Moreover, to meet the needs of the development of our national economy, a great deal of work has been done in the application of space science and technology, such as remote sensing, meteorology and communications by satellites. These efforts have also borne fruit.

(Mr. Shao Tianren, China)

The Chinese Government consistently holds that the development of space science and technology should benefit all mankind and must not be used as capital for a space monopoly and for carrying out an arms race in space. We firmly believe that the exploration and uses of outer space must serve peaceful purposes, and it is particularly important to stress this principle at this time, when a dangerous trend to extend the arms race to outer space has emerged.

The current session is of great importance since it will consider the reports of the two Sub-Committees and consider and adopt the draft principles on international direct television broadcasting. Meanwhile, as the Preparatory Committee of the Second United Nations Conference on outer space, it has to complete the preparatory work and consider and revise the draft report to be submitted to the Conference. Such an onerous task can be smoothly accomplished only through joint efforts and mutual co-operation by all Member States.

For many years, the Legal Sub-Committee and the Scientific and Technical Sub-Committee have done a lot of work and achieved considerable results in facilitating the exchange of space science and technology, the promotion of international co-operation and the elaboration of space law. However, we should not fail to see that despite prolonged discussions, some problems have remained unresolved. In fact, it would not be difficult to find solutions to such problems so long as we observe the United Nations Charter and the fundamental principles of international law and conduct consultations on an equal footing and on the basis of mutual understanding and accommodation. For example, the draft principles on international direct television broadcasting now under direct consideration by the current session were inscribed as a priority item on the agenda of the Legal Sub-Committee many years ago, but no agreement has been reached on this question so far. Last year, the thirty-sixth session of the General Assembly adopted a resolution on this issue requesting the current session of the Outer Space Committee to make a further attempt to

(Mr. Shao Tianren, China)

complete the elaboration of the said draft principles for submission to the thirty-seventh session of the General Assembly for adoption. This General Assembly resolution reflects the desire of the majority of countries and represents their efforts towards reaching early agreement. In our view, international direct television broadcasting should be carried out on the basis of respect for State sovereignty, which is an established principle of international law. It can be established only through consultation and necessary agreement between the broadcasting and receiving States. In this respect, the joint proposal submitted by 15 countries, including Argentina, Brazil and Canada (A/AC.105/C.2/L.131 and Add.1), can serve as a basis for reaching agreement. The idea of unlimited and free dissemination in disregard of the legitimate rights of other States is detrimental to international co-operation and therefore impracticable.

We are gratified to see that much progress has been made in the preparation of the Second United Nations Conference on Outer Space. Last year, many countries submitted their national papers on schedule. At the twenty-fourth session, with the efforts of all participants, the Outer Space Committee adopted the draft rules of procedure of the Conference, a paper on the composition of its bureau and an outline of its report. Then, under the guidance of Professor Yash Pal, Secretary-General of the Conference, the report was drafted on the basis of the outline. Early this year, the Scientific and Technical Sub-Committee undertook a preliminary consideration and revision of the draft report. All this paves the way for the Conference to be convened on schedule. During the current session, we will further consider and revise the draft report. Some aspects of the organizational work still have to be finalized so as to complete the preparatory work for the Conference. Consideration and revision of the draft report constitute an important task in the preparatory work for the Conference. The draft report first deals with the issue of the orientation and task of the Conference. Many countries hope

(Mr. Shao Tianren, China)

that the convening of the Conference will help to promote further the peaceful uses of outer space and fruitful international co-operation in order to change the present unbalanced development in space science and technology to enable more developing countries to share in the benefits of space science and technology. We think this desire is reasonable and should be fully reflected in the report.

The Chinese Government and members of its space science and technology community attach great importance to the Second United Nations Conference on outer space. For participating in the Conference, we have set up a special preparatory organ and organized a number of activities. Last November, we received with pleasure the visit of Professor Yash Pal, Secretary-General of the Conference, and had useful discussions with him on the preparatory work for the Conference. In order to propagate the spirit of the Conference and promote understanding among the broad masses of our country of the significance of the exploration and peaceful uses of outer space, we organized a poster competition and an essay contest among middle-school students under the title "How Space Activities Could Transform My Country and the World" and decided to issue commemorative stamps for the Conference just before its opening in response to the call of the Conference. We would like to continue to make our efforts and contribution towards the success of the Conference.

We believe that through the common efforts of all participants and through useful discussions, the current session, though confronted with a heavy task, will achieve the expected results. I wish this session every success in its work.

Mr. KABAIBO (Syrian Arab Republic) (interpretation from Arabic):

Mr. Chairman, I should like to express the pleasure of my country's delegation at seeing you presiding over the meetings of our Committee at this session. Your experience and your diplomatic skill are acknowledged and appreciated by everyone. At the same time, I should like to express our appreciation to Ambassador Carver of Australia, Chairman of the Scientific and Technical Sub-Committee, and to Mr. Wyzner of Poland, Chairman of the Legal Sub-Committee, for their tireless efforts in carrying out their duties. I should like also to pay a tribute to Mr. Yash Pal, the Secretary-General of the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space, for the preparatory work for that Conference and for the preparation of its draft report.

With regard to the work of the Scientific and Technical Sub-Committee at its nineteenth session, my delegation supports that Sub-Committee's recommendations in document A/AC.105/304 of 25 January 1982, in particular those relating to the organization of study and training courses during 1982 and 1983. We should also like to stress the need to ensure further financial support for scholarships for students from developing countries, and we should like to thank those States that have given assistance in this area.

With regard to the use of satellites for direct television broadcasting, my delegation feels that an agreement on this question must be reached by Member States so that outer space does not become a new area for international disputes.

As regards the use of outer space for military purposes, we support efforts exerted to limit use to peaceful purposes.

My delegation would like also to stress the importance of the transfer of technology from the developed countries to developing countries through appropriate modalities fitting the conditions of the latter countries and in a way ensuring the narrowing of the gap existing between developed and developing countries, thus ensuring the participation of all States in the benefits derived from the use of this technology - provided the United Nations plays a more effective role in this area.

With reference to the continuity of data and the compatibility of the equipment used, we join with many other States in stressing the importance of those two questions to ensure the access of States to data through the available



(Mr. Kabakibo, Syrian Arab Republic)

equipment, without being victimized by exploitation resulting from competition in marketing or having to purchase new equipment and devices to receive or analyse data from the programmes of various satellites.

In connexion with the preparatory work for UNISPACE 82, my delegation would like to stress certain points appearing in the final draft of the Conference report. Our views may be summed up as follows. First, my delegation stresses the recommendation for the creation of regional centres through which the continuity of access of developing countries to data may be ensured, in such a way as to guarantee the availability of such centres and of training facilities to States that wish them, in addition to the programme of computer software.

Secondly, the specialized agencies of the United Nations should play an effective role in the application of remote sensing techniques in their respective fields of concern, taking into account the interests of all States and providing financial and technical assistance to developing countries; they should use the funding agencies with a view to enhancing the scientific efficiency of these countries and enabling them, consequently, to take advantage of the applications of remote sensing to various fields.

With reference to the Legal Sub-Committee, my country's delegation supports the recommendation of the Sub-Committee about achieving a definition and delimitation of the terms "outer space" and "geo-stationary orbit", which are interrelated. This should be done as soon as possible.

As regards the activities of my country, we should like to say that the creation of a remote sensing centre, which is being undertaken in co-operation with the United States International Development Agency, is proceeding steadily; we hope it will begin to function fully in 1983. The General Directorate of Meteorology has established a station that has been receiving data from polar orbital satellites, since 1981, through a grant provided by the German Democratic Republic. This station is still working efficiently. The French Government has helped us establish a station for the reception and analytical imagery of photographs from METEOSTAT. Our satellite telecommunications station has been in operation for several years. In 1979 we organized a training symposium with the assistance of the Outer Space Committee, and every effort is being exerted to participate effectively in the work of UNISPACE-82.

The CHAIRMAN: I now call on the representative of the Food and Agriculture Organization.

Mr. HOWARD (Food and Agriculture Organization (FAO)): Thank you, Mr. Chairman, for this opportunity to speak on behalf of the Food and Agriculture Organization (FAO). This FAO statement will have three parts: First, I should like to provide a short review to the Committee on the activities of FAO in the field of remote sensing based on its prepared document for UNISPACE-82, "Remote sensing applied to renewable resources", which was distributed yesterday during the statement by the Secretary-General of the Conference. Secondly, I should like to make a few observations on the FAO outlook on future activities. Thirdly, a few comments will be made on the draft Conference report provided by the UNISPACE-82 secretariat.

Before proceeding, however, I wish to express FAO's appreciation for the continued interest shown by this Committee in the efforts being made by FAO to assist member States, particularly the least developed, in using remote sensing to help to expand their economies. As representatives may know, FAO is directing its main efforts in applying remote sensing to the survey and management of renewable resources, to the strengthening of national remote sensing infrastructures and to the transfer of appropriate remote sensing technology to developing countries through its expanding training programmes, which are conducted in co-operation with the Outer Space Affairs Division and the Natural Resources and Energy Division of the United Nations, the European Space Agency (ESA), the World Meteorological Organization (WMO), the Office of the United Nations Disaster Relief Co-ordinator (UNDRO) and several member States, particularly Italy and the Federal Republic of Germany.

As representatives will be aware, the threat of famine and the ever growing food gap of the developing countries are of increasing world-wide concern. We hope therefore that during the Second Conference on the Exploration and Peaceful Uses of Outer Space there will be an opportunity to consider the ways in which remote sensing as a new advanced technology can be applied beneficially to this traumatic situation and to the renewable resources of planet earth.

The growth of agricultural output in developing countries, although unprecedentedly high by historical standards, has been far below the internationally accepted target of 4 per cent per annum. In fact, in some countries it has

(Mr. Howard, FAO)

been insufficient to meet the additional demand for food created by increasing populations.

As requested, FAO has prepared for UNISPACE-82 a comprehensive report on its remote sensing activities in renewable resources. This Conference document is now available in English; in addition, I can assure members of the Committee that the document will be available in other working languages before the time of the Conference.

As pointed out in the document, FAO, through its major technical divisions, has used aerial photography for over 30 years and has been actively involved for more than a decade in the application of satellite remote sensing. Further, as representatives may be aware, the FAO Remote Sensing Centre was set up in 1980 following the request of this Committee that within the United Nations system FAO should establish the remote sensing centre for renewable resources.

(Mr. Howard, FAO)

FAO is aiding the dissemination of knowledge of remote sensing techniques through individual training and formal courses, both at its headquarters and in member States. Advice or assistance has been given for the establishment and strengthening of national remote sensing centres in 21 countries. FAO is also assisting in the establishment of a world-wide information system on the extent, quality and location of space imagery.

In fisheries the key problem is recognized as the sensing of a mobile resource against backgrounds which are only relatively static for coastal and inland fisheries but dynamic in the case of marine fisheries. In the former, satellite sensing can monitor short and longer term environmental changes.

Forestry has been a major user discipline for many years, initially employing aerial photography and latterly also LANDSAT data. LANDSAT imagery is being used in FAO associate projects, for example, to monitor the degradation and destruction of tropical forest cover and as an aid to large-scale forest surveys.

FAO has made use of basic information obtained from LANDSAT imagery in its land resources investigations, including thematic mapping in many countries. Extensive exploratory soil surveys have been carried out at low cost using satellite imagery. High altitude colour infrared photographs have been used for the inventory of land resources. LANDSAT imagery has been used also in conjunction with aerial photographs and ground observation to assess the current state and potential of pastures and rangelands by means of multistage sampling.

FAO attempts to anticipate, and needs to respond to, short-, medium- and longer-term rural disasters. Locust attacks and food crop failures through agricultural drought and desertification are examples of each category. The occurrence and local distribution of precipitation can be critical in relation to many such hazards, and environmental satellites - for example, NOAA, TIROS-N and METEOSAT-2 - are now assisting experimentally in drought monitoring.

I should like to turn now for a moment to an outlook on future activities. I wish to point out that, like those of many other United Nations service organizations, FAO activities and programmes reflect the requests made to it. So that while it may develop specific professional and technical capabilities in anticipation of member States' future needs, ultimately such requests will determine the direction to be taken by the organization.

(Mr. Howard, FAO)

In the current biennium 1982-1983, FAO is very much concerned with the introduction of appropriate proved remote sensing methods and techniques to developing countries through its field programmes and in providing training courses to assist developing countries to gain competence in remote sensing as a new advanced technology. Assistance is also being provided to help member States develop their own remote sensing infrastructures for renewable resources and to improving food security, particularly in Africa.

If we look at the activities described in the FAO document for UNISPACE-82, we will find indications of what demands are likely to be made of remote sensing for renewable resources over the next few years and we can see some areas where further developments and refinements of the technology might be most beneficial. Such developments would also provide support for resource surveys in member States and key inputs to information systems which will be required for planning, management and determination of future policies. These include data bases. In many sectors there will be a growing need to monitor various natural phenomena, as well as those caused by human activity.

Monitoring demands remote sensing systems that are regular, timely and reliable and that have appropriate resolution and spectral sensitivities. One problem, as we see it, is the constraint of the delay in the delivery of satellite imagery to a user, and another problem is the application of LANDSAT imagery to the monitoring of tropical agriculture. In this respect, it is the size of agricultural plots, which are so often too small to resolve individually on existing imagery that is available or which may be used to grow a mixture of crops.

Increasingly, digital satellite imagery will be used as an input to automatic mapping systems. Nevertheless, those responsible for developing the next generation of earth resources satellites need to bear in mind that for many years visual analytical techniques will continue to be used for numerous purposes so that any new system should offer high quality photographic output as well as digital data.

Finally, turning for a moment to Conference document A/CONF.101/PC/L.20. I take this opportunity to offer a few general comments on this document, which was unfortunately received in Rome in facsimile format only a very short time ago, and also to request that FAO be given the opportunity to discuss specific points

(Mr. Howard, FAO)

with the secretariat before the draft report is finalized at this meeting. We should also like to congratulate the secretariat on the comprehensive review it has provided in section E of the aforementioned document on the activities of the United Nations and its agencies. We believe that this review covers all units of the United Nations system substantially involved in space application. We would suggest, however, that several paragraphs could be strengthened by including further references to the United Nations agencies in general and would ask that at least two paragraphs, paragraphs 374 and 425, be rephrased to take into consideration the fields of competence of the agencies.

Once again I thank the Committee for providing me with the opportunity to present this FAO statement and to reaffirm to the Secretary-General of UNISPACE-82, Professor Yash Pal, FAO's support, when required and within the limits of available resources, in the final preparation for UNISPACE-82.

The CHAIRMAN: I now call on the representative of the International Astronautical Federation.

Miss GERARD (International Astronautical Federation (IAF)): Mr. Perek, President of the International Astronautical Federation, has asked me to extend to this Committee his best wishes for a successful session and to express his deep regret at being unable to attend. He has also asked me in his stead to summarize for the Committee the Federation's activities in connexion with UNISPACE-82.

As delegations are aware, the IAF participated in the preparation of a number of background papers for the Conference. We hope these papers have been of value to the Committee and its members, both in the preparation of national papers and in providing useful information on global space science and technology.

As part of an over-all effort to increase the degree of co-operation among international space organizations, the IAF and the Committee on Space Research (COSPAR), on the initiative of the Secretary-General of UNISPACE-82, have agreed to co-sponsor a scientific and technical meeting in conjunction with UNISPACE-82. This meeting, called UNISPACE-82 Forum, will be held in Vienna from 4 to 6 August 1982 in the Redutensaal of the Hofburg Palace.

(Miss Gerard, IAF)

The main purpose of the UNISPACE-82 Forum is to discuss and elaborate upon the concepts contained in the background papers with a view to providing UNISPACE-82 participants, particularly those from the developing countries, with current, updated information and a fresh outlook on the broad issues of the Conference.

Professor Yash Pal has informed all countries of the event and has suggested that one or more scientific and/or technical experts from each country be present at the Forum. Mr. Perek strongly endorses this recommendation and adds his encouragement of such action to that of Professor Yash Pal in the hope that these experts will be included in the national delegations and thereby provide an informal but effective link between UNISPACE-82 and the Forum.

(Miss Gerard, IAF)

The Forum itself will consist of eight sessions. Each session will cover a specific subject to be addressed by a main speaker and two to three referees or commentators. Ample time will be provided for audience participation in the discussion.

The Forum will be under the co-chairmanship of Professor Carver of Australia and Mr. Ortner of Austria. The eight sessions are planned as follows:

- (1) Relevance of Space Science to Development; co-ordinator, Professor Denisse of France; main speaker, Professor de Jager of the Netherlands;
- (2) Remote Sensing Applied to Meteorology, Climatology and Oceanography; co-ordinator, Mr. Bolle of Austria; main speaker, Mr. Wiin-Nielsen from the World Meteorological Organization (WMO);
- (3) Remote Sensing Applied to Geology, Geodesy and Agronomy; co-ordinator, Mr. Rasool of the United States of America; main speaker, Mr. Bodechtel of the Federal Republic of Germany;
- (4) Communications Satellites for Educational Uses; co-ordinator, Mr. Al-Mashat of Iraq; main speaker, Mr. Chitnis of India;
- (5) Communications Satellites for Point-to-Point Communications; co-ordinator, Mr. Ohyama of Japan; main speaker, Mr. Edelson of the United States of America;
- (6) Social and Economic Implications of Space Activities; co-ordinator, Mr. Serafimov of Bulgaria; main speaker, Ambassador Jankowitsch of Austria;
- (7) Management of Space Communication Frequencies and Interactions of Space Objects; co-ordinator, Mr. Butler from the International Telecommunication Union (ITU); main speaker, Mr. Perek of Czechoslovakia; and
- (8) Future Space Programmes of Interest to Developing Countries; co-ordinator, Mr. Gibson of the United Kingdom; round-table participants from the Centre national d'études spatiales (CNES), the European Space Agency (ESA), the Council on International Co-operation in the Study and Utilization of Outer Space (INTERCOSMOS), the Indian Space Research Organization (ISRO), the National Aeronautics and Space Administration (NASA), the National Space Development Agency of Japan (NASDA) and the Space Agency of the People's Republic of China.



(Miss Gerard, IAF)

The International Astronautical Federation (IAF) will also have its regular annual Congress in 1982. This year it will be held in Paris, France, from 26 September through 2 October. Mr. Perek and I are honoured to invite all of you to join us at the Congress, which marks the twenty-fifth anniversary of the first orbital space flight.

We thank the Committee for this opportunity to review our activities and again wish it a most successful twenty-fifth session.

The CHAIRMAN: I now call on the representative of the Committee on Space Research (COSPAR).

Mr. ORTNER (Committee on Space Research (COSPAR)): On behalf of the President of COSPAR, Professor Denisse, I wish to thank this Committee for having given COSPAR an opportunity to address it.

After having prepared inputs to numerous background papers for UNISPACE-82, the COSPAR scientific community is looking forward to this important event. As has just been explained by the representative of the International Astronautical Federation (IAF), COSPAR and IAF are jointly preparing for the UNISPACE Forum to precede the main Conference, UNISPACE-82. The main purpose is the discussion and elaboration of concepts expressed in the background papers, with the aim of providing up-dated information on the broad issues to be debated by UNISPACE-82. The details of the programme have just been presented by the representative of IAF, but should any delegation require further information, we shall be very pleased to provide it later on in this session.

During this UNISPACE Forum, it is intended to present at the opening meeting the conclusions of the COSPAR/UN/COSTED Symposium on the Role and Impact of Space Research in Developing Countries, which will take place within the framework of the Twenty-fourth COSPAR Plenary Meeting, to be held in Ottawa, Canada, in May and June this year.

The organization in 1982 of UNISPACE-82 will permit the evaluation of the effects of enormous advances in the development of space science and technology which have occurred since the launch of the first artificial satellite, SPUTNIK I.

(Mr. Ortner, COSPAR)

New horizons have opened up to scientists through the use of space techniques, as well as possibilities of new applications for purposes of national development. At the same time, new legal, economic and political questions have arisen, the solution of which is of permanent concern to the United Nations and the subject of the untiring efforts of this Committee.

The search for the best directions and solutions for the utilization of new tools represented by space technology, especially for the benefit of the lesser developed countries, is, we understand, one of the main aims of UNISPACE-82, and COSPAR is most happy that its contributions are providing some background to the important deliberations of this United Nations Conference.

For the non-governmental scientific community of the International Council of Scientific Unions (ICSU), the year 1982 is the occasion for celebration not only of the beginning of the space era but also of the twenty-fifth anniversary of the International Geophysical Year (IGY), which took place in 1957-1958 and which was a global enterprise of a co-ordinated world-wide programme of scientific observations and studies, just as was the case of its precursors - the First International Polar Year, which took place 100 years ago during the years 1882 and 1883, and the Second International Polar Year, which took place 50 years ago during the years 1932 and 1933. In the year of these multiple anniversaries, which witness the enormous potential of the non-governmental scientific organizations, COSPAR extends to the Committee the most sincere wishes for the success of its deliberations and, in particular, the fruitful outcome of UNISPACE-82.

The assessment of the importance of the applications of space science and technology for the benefit of mankind is the noble task of the Conference. We hope that the Conference will also give the impetus needed for the further development of the fundamental sciences, without which, in our opinion, there cannot be efficient application in the lesser developed countries.

The meeting rose at 12.40 p.m.